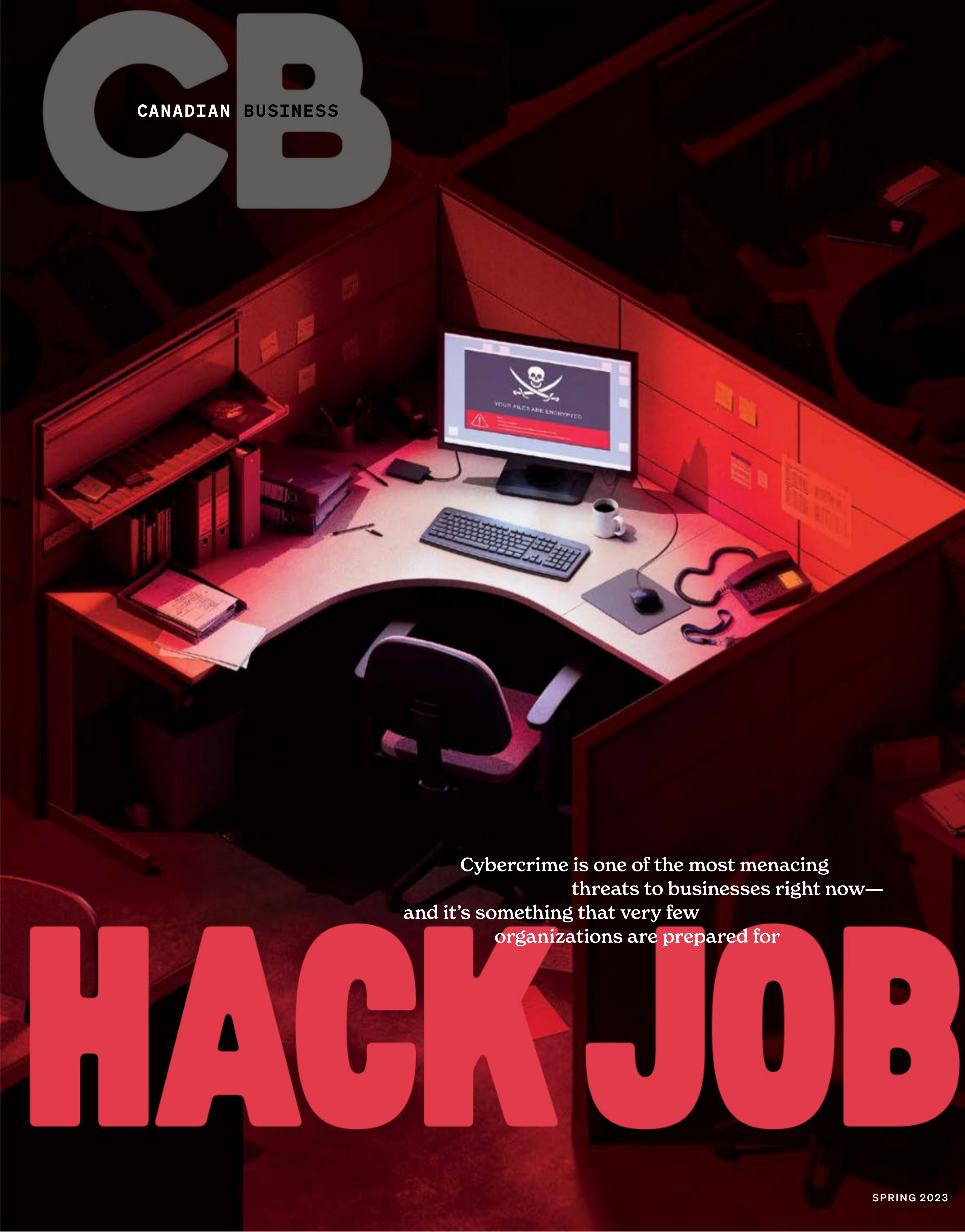
PLUS: ANNOUNCING THE 2023 CB INNOVATION AWARDS WINNERS / INSIDE THE RACE TO BUILD CANADA'S HYPERLOOP TRAIN NETWORK / DO INTERNSHIPS STILL MATTER IN 2023? / HOW TO GET YOUR EMPLOYEES TO ACTUALLY WANT TO GO TO THE OFFICE

CB
CANADIAN BUSINESS



Cybercrime is one of the most menacing threats to businesses right now—and it's something that very few organizations are prepared for

HACK JOB

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> “We’re in the last mile. It’s so close.”
>
> **SEBASTIEN GENDRON**
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>
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PHOTOGRAPHS BY (GARDENING) KATE INCE, (WORKSPACE) RICHMOND LAM

Photographer Janick Laurent snapped TransPod CEO Sebastien Gendron at the company's HQ for "Pipe Dreams" (p. 30). "I was blown away by how much they do in that small space," Laurent said after seeing TransPod's hyperloop train prototype. "I expected it to be this giant warehouse."

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Sarah Treleaven
Treleaven is a Halifax-based writer on the grifter and scammer beat. For this issue's cover story, "Hack Job" (p. 38), she dives deep into the dark web and retraces the steps of Canada's most prolific cyberpirate. "The most surprising part was just how organized the world of ransomware is," she says. "I thought it would be the wild west—but that is not how it operates."

Katie Heindl
Toronto-based Heindl is a regular contributor to sports publications like *SLAM* and *The Athletic* and is the author of the newsletter Basketball Feelings. In "Net Gains" (p. 16), Heindl writes about Courtside Restaurant, the NBA's new eatery on Toronto's waterfront. "There are so many cool basketball 'Easter eggs' throughout the space that will completely delight fans," she says.

Julia Dufossé
Dufossé is an artist based in Austin, Tex., who specializes in surreal and atmospheric illustrations. She created the artwork for "Pipe Dreams" (p. 30), about Toronto company TransPod's ambitious plans to build Canada's hyperloop train network. "The mood is very futuristic—it's like we're in the '60s picturing what it would be like to travel in a tube."

Carlos Osorio
Born in El Salvador, Carlos Osorio is a freelance photographer who shoots for Reuters, *The Globe and Mail* and *The Canadian Press*. In 2022, he was selected as a Pulitzer Prize finalist for his work photographing polar bears in Canada's Arctic. For *Canadian Business*, he turned his lens on the NBA's Courtside Restaurant for "Net Gains" (p. 16).

CB Canadian Business

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PHOTOGRAPH BY (BEHIND THE SCENES) JANICK LAURENT, (TRELEAVEN) JAMIE LEVIN

Full Speed Ahead

How worried should we be about artificial intelligence?

“Dear readers,
As we welcome the arrival of spring, it is my pleasure to present to you the Spring 2023 issue of *Canadian Business* magazine. Our team has been hard at work curating a selection of articles and features that we believe will inform and inspire our readers.”

Thus began the AI-produced editor's letter delivered to me within seconds of entering a prompt into ChatGPT's web app. The note in its entirety was so vague that it didn't actually convey anything. Still, it was impossible not to marvel at how quickly this generative AI could complete my work.

The past couple of months have seen vast advances in the large language models that power platforms like ChatGPT, and now employers are using it to write job descriptions, and your friends are trying it out to create grocery lists. But coupled with the public fascination is a healthy fear of how far this will all go. Even some of AI's biggest proponents, including Elon Musk, signed a petition in March urging for an industry-wide pause and warning that developers are “locked in an out-of-control race.”

When *CB* hosted a luncheon in April celebrating our 2023 Innovation Awards, this push-pull of progress versus patience was a hot topic. One of our event speakers, Kristie Painting, country manager for Pinterest Canada, was asked if she was worried about AI replacing jobs. Her response was comforting—but also foretelling: “In a world where AI can create content, authenticity will become a new form of currency.”

Authenticity is a uniting quality of the businesses celebrated in this year's Innovation Awards, which you can read about on page 48. Though the 25 winners each have unique products and services, they are all hyper-focused on serving their customers, shareholders and society at large while maintaining a commitment to ethical, sustainable and inclusive policies.

Also in this issue is a look at another technology poised to disrupt the way we work and live. For “Pipe Dreams” (p. 30), Jason McBride visited the headquarters of TransPod, a Toronto-based start-up working on a hyperloop train network that could transport travellers from Montreal to Toronto in less than 40 minutes.

Lastly, our cover feature examines a threat that is impacting businesses globally: cyberattacks. In “Hack Job” (p. 38), Sarah Treleaven profiles Sébastien Vachon-Desjardins, a former government worker from Gatineau, Que., who extorted millions from Canadian and U.S. companies. The takeaway? Most businesses are woefully unprepared for a ransomware attack. One thing is for sure: The world we work in is changing more rapidly than ever, and business leaders must keep informed—and keep innovating—if they want to stay on this fast-moving train.

CHARLOTTE HERROLD
Editor-in-Chief

Write us at
letters@canadianbusiness.com

PHOTOGRAPH BY MIGUEL ARENILLAS

NKPR

ENTREPRENEURSHIP GRANT

Natasha Koifman & NKPR Congratulates
Nuria Madrenas, Founder of Tacit Collective
on being the recipient of the inaugural NKPR Women's Entrepreneurship Grant, an award created to empower and uplift women entrepreneurs by providing them with the tools they need to make their dreams a reality.

Nuria has received $10,000 in funding and continues to acquire valuable hands-on coaching and mentorship to support Tacit Online Gallery & Art Consultancy. In a world where 2% of the art sold is by women, Tacit is a platform designed to address gender disparity in art by promoting women-made art amongst emerging collectors and giving female artists a platform to show their work.

For more information, visit www.nkpr.net & www.tacitcollective.com
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“We’re thoughtfully innovating to make sure everyone with a period has access to products”
—CARINNE CHAMBERS-SAINI, PAGE 12

The Brief

TAKE TWO

Training Ground

Once upon a time, work placements were a guaranteed foot in the door, but Covid wiped out most of these opportunities for students. Now that they’re back, what place do internships—remote, hybrid or in person—have in a post-pandemic workscape?

by Liza Agrba / illustration by Melanie Lambrick

→

In 2020, more than half of the internships in the U.S. were cancelled, according to a Glassdoor estimate. Expecting an economic downturn, employers cited safety and budget concerns. Now that we're through peak pandemic times and many companies have reinstated internships, how have these programs changed? And are they still worth it—for both employers and interns? Sarah Tatsis, former BlackBerry intern and its current SVP of IVY platform development, and Ana Rita Morais, chair of George Brown College's School of Design and creator of the database Pay Design Interns, weigh in on what employers should know about designing a modern internship program.

ANA RITA MORAIS At companies that kept or have reinstated their internship programs, I'm seeing a paradigm shift: Employers generally have much higher expectations of interns than they did pre-pandemic. With the increase in hybrid and remote work, it's more difficult to onboard and train people virtually, so employers want someone who is more mature and has strong communication skills.

SARAH TATSIS One thing that suffers in remote environments is the ability for students to learn about roles besides the one they were hired to do. Being back in person and seeing the day to day means interns can make more informed decisions about their futures.

“Internships are still the best way for students to get a handle on how an actual workplace functions”

SARAH TATSIS
SVP OF IVY PLATFORM DEVELOPMENT AT BLACKBERRY

A.R.M. Just like before the pandemic, internships are an opportunity to network, understand structures and frameworks in places of work and learn how to collaborate and engage with colleagues. And from an employer's perspective, training the next generation of talent and drawing on their experiences is a tremendous way to add value to the organization.

S.T. Exactly. Bringing in fresh perspectives generates innovation and creativity—and that's really what we're after when designing new products and services. We're also continuing to see increased productivity as a result of internship programs because we are able to give interns day-to-day tasks that free up senior talent for higher-priority projects.

A.R.M. More than ever before, given the cost of living, it's crucial that employers pay their interns. When it comes to remote internships, there are already significant barriers to who gets to participate, since everything from technological access to the ability to focus and work well remotely depends on many factors. A lot of young folks don't live alone—they live in distracting environments, so they may have to go out to work somewhere or rent office space, which is made more accessible with fair compensation.

S.T. Empathy and flexibility are crucial. Not everyone can log in and work from nine to five, and we have to be ready to accommodate that. And, yes, BlackBerry's co-op programs have always been paid. No matter what the economic outlook is, it's still worth it for us to bring in co-op talent given the associated innovation and efficiency benefits.

“More than ever before, it's crucial that employers pay their interns”

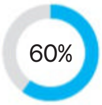
ANA RITA MORAIS
CHAIR OF GEORGE BROWN COLLEGE'S SCHOOL OF DESIGN

A.R.M. I also think mentorship is a huge factor. When you bring on an intern, you have to make sure they're not just floundering in a cubicle (virtual or not). Go out for lunch with them once a week, set up a buddy system, talk about what's working and what's not working.

S.T. Every one of our co-op students has a manager but also an onboarding buddy who helps them get up and going when they first join. It's in the employer's best interests to provide these things since it helps interns be productive.

A.R.M. Ultimately, internships are about students exploring future career paths. A lot of people see getting hired right afterward as the measure of success for an internship. But success can appear in many different ways, even if that means learning that a particular company or way of working isn't right for you.

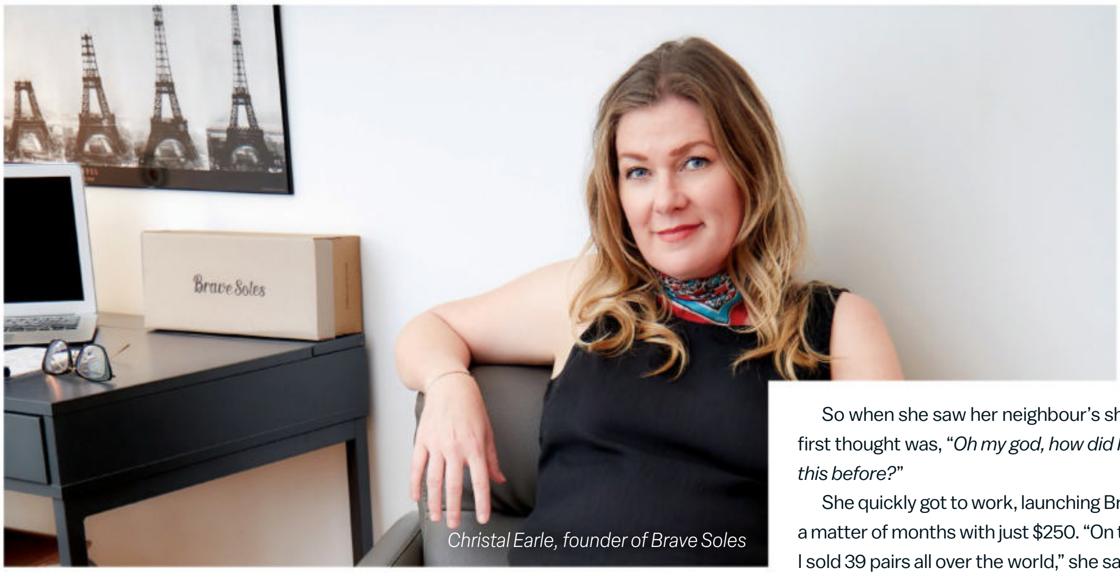
S.T. When we're making hiring decisions, we often look for people who have an internship on their resumé. On-the-job experience means they can hit the ground running as an employee. We need a lot of new talent in tech—to name one example, there are something like 3.5 million cybersecurity roles open globally. Internships are one of the best ways to get people into that job pipeline, so they are still extremely valuable in the current climate.



TOP OF THE PILE

More than half of the employers surveyed reported that they are more likely to hire a new grad with internship experience

ILLUSTRATIONS BY DAVID SPARSHOTT



Christal Earle, founder of Brave Soles

A New Sole Purpose

Christal Earle's sustainable footwear brand, Brave Soles, is creating a better planet, one step at a time

By Mike Bonner,
Head of Canadian Business Banking,
BMO

Earle at a workshop in Dominican Republic. Photo: Augusto Rosales

Earle on The Morning Show *in Toronto. Photo: Augusto Rosales*

When your goal is to make the world a better place, every interaction is an opportunity to create change. Just ask Christal Earle, founder of the sustainable footwear brand Brave Soles.

Since 2005, Earle had been living and working with migrant workers at a landfill on the northern coast of the Dominican Republic. More than a decade later, a chance encounter sparked a truly impactful idea, for the environment and the health of the community.

"One day my neighbour came out of her apartment and she was wearing these cute sandals [with soles made from tires]," Earle recalls. "I was like, 'Oh, I love your shoes,' and then it hit me like a lightning bolt."

The risks associated with discarded tires

During her time in the Dominican Republic, Earle became keenly aware of the problems posed by discarded tires. "Globally, we produce almost two billion tires a year," she says. "You can get a little tiny hole in a tire and the whole thing needs to be discarded. Working in a landfill, it's very jarring to see how things reach their end of life long before they ever reach their end of use."

By the time she noticed her neighbour's shoes, the tire problem had already been on Earle's mind for quite a while. "Tires are made of rubber," she says, "but they also have a lot of plastic in them that degrades down into microplastics." When they're burned—as they often are in places that lack recycling facilities—they release toxins into the air, and when they are left in landfills, they pool water and act as breeding grounds for disease-carrying mosquitoes. "Some of the people I was working with were dying from those diseases or their kids were getting sick," Earle says.

So when she saw her neighbour's shoes, Earle's first thought was, "*Oh my god, how did I not think of this before?*"

She quickly got to work, launching Brave Soles in a matter of months with just $250. "On the first day, I sold 39 pairs all over the world," she says.

But to truly have an impact, Earle knew it wasn't enough just to put out an innovative new product—she had to be able to quantify what she was doing. "What gets measured gets valued," she says.

Seizing financial opportunities

Back in Canada, she partnered with organizations, including BMO, to learn how she could best scale her mission and grow her impact. "I started a fashion company because I wanted to provide the opportunity for people to experience the power of their choices," Earle says.

Earle discovered the BMO Celebrating Women Grant Program through IFundWomen, an online platform dedicated to female entrepreneur funding. Using a $10,000 grant, she's been able to take an even closer look at her own processes to better align them to her goal of creating truly circular fashion. "You can't say something is 100 per cent upcycled unless it is," she says. "With our BMO grant, we've found new efficiencies in our supply chain to source things like reclaimed zippers and buckles. We plan to launch an accessories line that's 100 per cent reclaimed this spring."

Earle says BMO has been instrumental in helping build her relationships with Coralus and Export Development Canada–two vital partnerships needed to run her business and support women. "Due to these connections, we are a 2023 venture with Coralus." BMO also gave her a membership to GroYourBiz–a monthly peer advisory board for women in business. "Those relationships have been super valuable," she says.

For Earle, that ability to create meaningful change without a ton of resources is one of the great joys of operating as a small business.

"There's nothing new under the sun," she says. "I don't think we ever need to create another new piece of clothing again. But as an entrepreneur, I see endless opportunities to reclaim things and have a greater imagination around how things can be used."

Carinne Chambers-Saini co-founded the period-care company Diva from her parents' basement. Now, its star product is the Kleenex of menstrual cups.

VIVA LA DIVA

as told to Isabel B. Slone

When my mom got her period in the 1960s, pads still had belts and pins. She dreamed of a product that was simpler to use and less wasteful—but she didn't find it until 1992, when she was reading a health magazine and saw a tiny ad for a menstrual cup. She ordered one for herself and one for me—I was 14 at the time. It was called The Keeper, and it looked like a mini toilet plunger and was made from hard brown rubber. My mom started selling them in her jewellery store in Waterloo, Ont., and in 1997 sold her business to become a full-time distributor for The Keeper.

By the time I graduated from the business program at Wilfrid Laurier University in 2001, my mom and I had ideas for ways menstrual cups could be improved. We wanted to create something that was smoother but had grippy ridges for easier removal. We had a vision of bringing the menstrual cup to the masses.

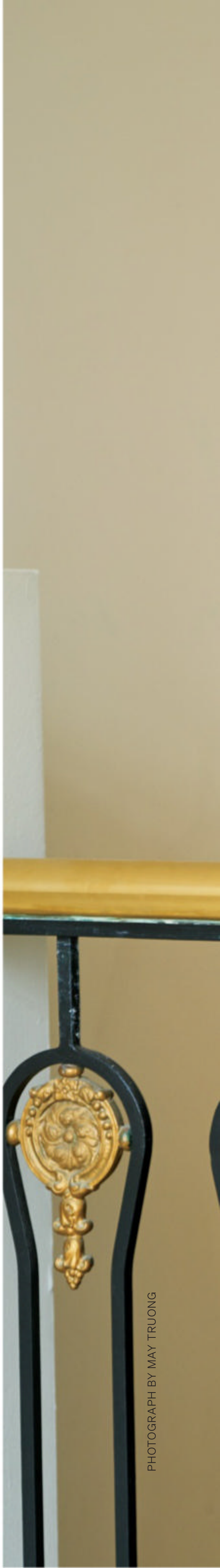
We asked a tool and die maker to do the initial technical drawings, but they had no idea how to manufacture the cup because they specialized in car parts. Eventually, I found a sales rep at a silicone-manufacturing company who could introduce us to a manufacturer.

It took close to two years to perfect the design, and we launched in 2003. We came up with the name Diva Cup because we wanted something that expresses the powerful nature of the product.

We started out with 5,000 cups and built a website to sell them, manually typing credit card numbers into a machine to process orders. We were selling around 50 to 100 cups a day and had six employees working in my parents' basement.

In 2004, we went to a trade show for the National Association of Chain Drug Stores and had speed dates with head buyers of stores in the U.S. Many of them were grey-haired men who didn't understand the significance of our product. We spent every dollar of our marketing budget getting to that conference and didn't land a single deal.

Instead, we built a strong business by getting our product into thousands of health-food stores and online shops across North America. By 2008, we were carried in every Whole Foods in the U.S. and Canada. People told us how much they loved the Diva Cup and how life-changing it was. That



PHOTOGRAPH BY MAY TRUONG

↵ Carinne Chambers-Saini at The Walper Hotel in Kitchener, Ont.

> “We knew that if we could break into the mainstream, everyone would see how great the product is”

really kept us going; we knew that if we could break into the mainstream, everyone would see how great the product is.

We finally landed our first mass-market account with Shoppers Drug Mart in 2013. Shoppers put us in all of its 1,200 stores across Canada; that moved the needle. Once we were carried by this Canadian chain, we took that sales data and approached American retailers. CVS was the first to put the Diva Cup on its shelves, selling it in 8,000 stores. From 2013 to 2017, we grew from a $3.5-million company to a $21-million company and expanded to 30,000 locations. The benefit of being in those retailers was that it made Diva Cup a household name—the Kleenex of menstrual cups.

But our biggest source of growth turned out to be our greatest challenge. We found ourselves competing with companies like Procter & Gamble, who spend $300 million a year on advertising. Brands like Tampax now have their own cups. At first, it was scary, but it’s brought more awareness to the space, which is what we wanted from the beginning.

We’ve shifted our marketing strategy from “This is what a menstrual cup does” to “This is why you should choose Diva.” Previously, we had to convince people of the benefits. Now, they know the benefits.

I’m proud that my mom and I never quit over the years. To this day, we’re still 100 per cent family-owned. We started with $50,000 of my mom and dad’s money, and we didn’t have any loans or outside funding.

My mom retired seven years ago, and my husband, Rick, and I now run Diva. We are building a holistic-wellness brand and expanded our product range to include menstrual discs. We’re focused on innovating to make sure everyone with a period has access to products that work for their anatomy and flow. We launched our new brand identity—two years in the making—which is streamlined and modern. We’re laying the groundwork for the next era of Diva. CB

FIVE THINGS SHE LOVES

Here are Chambers-Saini’s sources of inspiration

01

THE MINDVALLEY SHOW with VISHEN

The Mindvalley Show With Vishen

Mindset and health are important for success, so I’m always looking for ways to be the best version of myself. This podcast is world-class.

02

TOOLS OF TITANS
TIM FERRISS

Tools of Titans

My bookshelf is overflowing. Currently, I’m reading this book by Tim Ferriss. I love learning all the tactics and habits of leaders and icons around the world.

03

Skiing

I recently got back into skiing after a 20-year hiatus, and I love it so much. Going skiing with my family in Quebec is a great way to spend quality time with them.

04

Celery juice

I don’t drink coffee. I start each day with lemon water and use my high-speed blender and Omega juicer to make pure celery juice, which has been a powerful tool on my health journey.

05

The work of Kat Hernden

I love art that features geometric shapes and patterns. One of the most talented artists is up-and-comer Kat Hernden.

PHOTOGRAPH BY (CHAMBERS-SAINI) MAY TRUONG, (THE MINDVALLEY SHOW) COURTESY OF MINDVALLEY, (TOOLS OF TITANS) COURTESY OF HARPERCOLLINS, (HELMET) ANNA POLTORATSKAYA/ISTOCK, (JUICE) JENIFOTO/ISTOCK, (KAT HERNDEN) COURTESY OF KAT HERNDEN/GLOBE STUDIOS

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Net Gains

The NBA just opened its Courtside Restaurant in Toronto, a first in the league's expansion into hospitality

by Katie Heindl

Until recently, Toronto's Queen's Quay waterfront was a dead zone of dining options, anchored by the Westin Harbour Castle's turret-like revolving restaurant and haunted by the ghost of Captain John's, the floating banquet hall in a derelict ship that closed in 2008. But revitalization efforts have ushered in the likes of Aburi-owned Miku and Michelin-starred Don Alfonso 1890, making the quiet stretch along Lake Ontario an enticing arena for exciting new culinary players—which now includes the NBA's first-ever Courtside Restaurant.

Spearheaded by the NBA's branded attractions arm and operated by Toronto's Urban Dining Group (the company behind Hey Lucy and Gabby's restaurants), the project has been in the works since 2018. The 930-square-metre eatery opened in April and hopes to attract hoop heads, tourists and locals alike with its varied menu, atmospheric space filled with basketball memorabilia, gift shop and, soon, a 200-seat patio.

Courtside Restaurant's culinary ambassador, *Top Chef* winner Erica Karbelnik, and executive chef Myles Sam created a high-low menu fit for a sports-bar-meets-upscale-dining venue inspired by the energy of the city. "As Torontonians, we are very proud of who we are, and our love for basketball is electric," says Karbelnik. Hand-helds, like a fried muffuletta sandwich, are meant to be eaten with one eye on the game, which is broadcast on 25 screens throughout the restaurant, while more elevated dishes, like berbere-spiced chicken and salsa-verde swordfish, appeal to foodies as much as sports fans.

Throughout the space, rare collectibles, like a pair of Shaq's size-22 sneakers, are displayed alongside custom artwork, including a mural by Toronto-based Anishinaabe artist Jenny Kay Dupuis, and social-media-worthy backdrops, like a neon sign that reads "I will play in the NBA one day."

The Toronto launch will serve as a testing ground before more Courtside Restaurant locations open globally. "Nearly half the population of Canada are NBA fans, and we're seeing a record amount of international talent coming from Canada," says Stacie Cohen, senior director of branded attractions. "So it was a no-brainer to choose Toronto as the first location. We wanted to deliver a new experience to this passionate fan base."

There are 25 flat screens throughout the restaurant so the game can be seen from every seat

Decor elements like beat-up rims jutting out from the wall are meant to evoke the nostalgia of schoolyard pick-up games

PHOTOGRAPHS BY CARLOS OSORIO

A custom light fixture shaped like a court hangs over the bar area

The eatery seats 200 people inside and 200 on its soon-to-open patio

HIGHLIGHTS

MVP status
Designed by local firm RevelHouse, the restaurant is divided into three dining rooms as well as an upstairs area that can be rented for private events.

Courtside seats
High-top tables in the bar area are made from actual NBA courts and labelled with QR codes that link to notable games played on them.

Shop talk
The in-house retail store carries official NBA and exclusive Courtside Restaurant merch, including prints by artist Jenny Kay Dupuis.

A display case featuring 13 pairs of sneakers includes original Nike Air Jordans from 1985

In the Bag

As Canada bans the sale of single-use plastics this year, grocery stores are replacing their plastic bags with… plastic bags

by Rebecca Gao

Thank You for Saving the Planet!

Canadians use about 15 billion plastic grocery bags annually. But since the federal government announced a ban on the sale of single-use plastics like cutlery, straws and checkout bags, effective as of December 30 this year, grocers have begun to replace their thin plastic bags with thicker, reusable ones.

Sobeys Inc. (which owns and operates Sobeys, FreshCo and Foodland) reports that the company pre-emptively eliminated 800 million single-use plastic bags in 2019 by providing a reusable option at checkouts. In a press release earlier this year, Loblaw (which includes Loblaws, Real Canadian Superstore and No Frills) claimed it has diverted 13 billion plastic bags from landfills to date in its efforts to shift to reusable bags. Such bags cost the customer anywhere from $0.25 to $5.

The most common replacement for single-use grocery bags is the poly-woven variety, which feels like a cross between plastic and fabric. While it's more durable than a traditional checkout bag, it's still made from polypropylene or polyethylene, both of which are derived from fossil fuels. "These are not renewable or sustainable sources, and they're not compostable or biodegradable," says Mohini Sain, director of the Centre for Biocomposites and Biomaterials Processing at the University of Toronto.

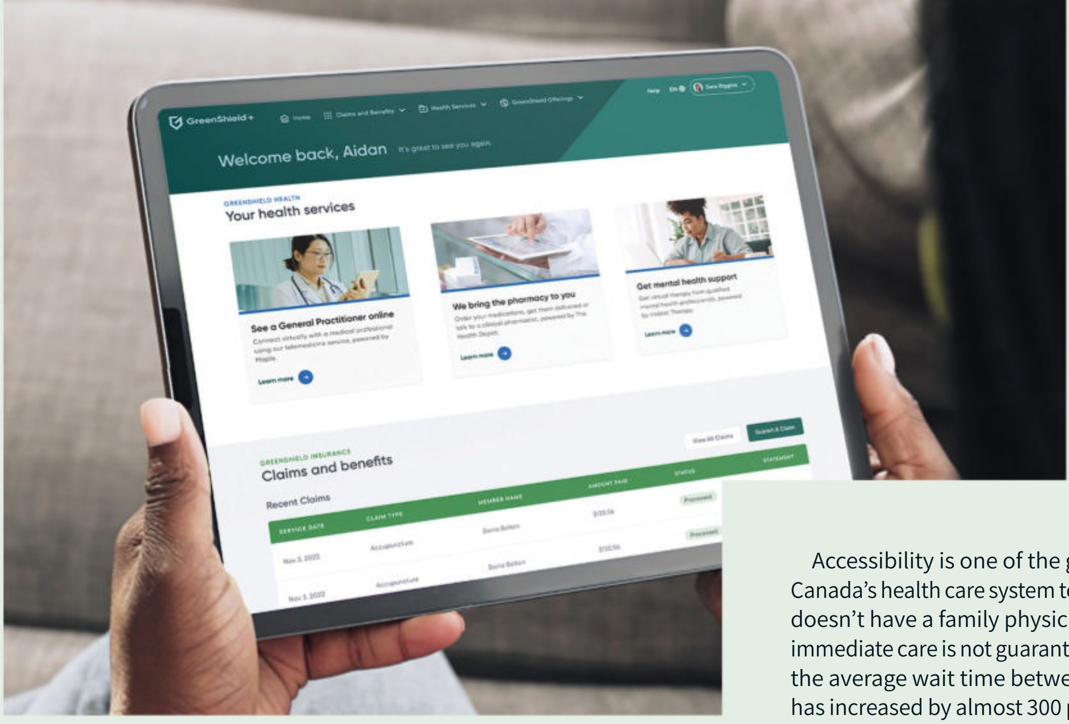
It also requires additional manufacturing in order to make it shopping-ready. Plastic fibres are woven into a clothlike fabric and then treated with a plastic coating to protect the bag from soilage and moisture. "These processes are very energy-intensive," says Sain. "The increase in the number of production processes means an increase in greenhouse gas emissions too." All in, the carbon footprint of a reusable grocery bag is equivalent to 109.2 kilometres of driving. Comparatively, the carbon footprint of a single-use plastic bag is equivalent to just eight kilometres of driving.

Of course, the more you reuse a bag, the more you decrease its environmental impact. For a durable polypropylene bag to have the same climate impact as one thin, single-use bag, it needs to be used an estimated 10 to 20 times, according to a 2020 report from the United Nations Environment Programme. But this relies on a consumer behavioural shift that won't happen overnight. Sain says that getting shoppers to remember to bring their bags is difficult, especially given the relatively low price and plentiful availability of new bags at the checkout. But it's not impossible. "If customers are educated about the composition of these new reusable bags and the sizable impact their production has on the environment, it might help us take our culture back to a time before plastic bags were ubiquitous and make bringing your own bags the norm."

13.7×

The carbon footprint of a reusable grocery bag is more than 13 times that of a conventional plastic one

PHOTO ILLUSTRATION BY HANNAH BROWNE


GreenShield+
Welcome back, Aidan
Your health services
See a General Practitioner online
We bring the pharmacy to you
Get mental health support
Claims and benefits
Recent Claims

How GreenShield+ Will Revolutionize Canada's Health Care and Benefits Experience

The innovative new digital health and benefits ecosystem is establishing a new standard of care

CREATED FOR GreenShield™

Imagine it's a Monday morning and you've woken up with a fever and a pounding headache. Instead of waiting in line at a nearby walk-in clinic, you reach for your phone, open an app and connect with a doctor in a matter of minutes. Do you require medication? Picture receiving a prescription in real time and having the medication delivered directly to your door all while a pharmacist is available on the app to answer your questions. Not to mention that your insurance provider and care provider are fully integrated, so there's no paperwork involved and no need to pay out of pocket. The only thing left to do is get better.

This is the future of health care and benefits, according to GreenShield. The 65-year-old insurance company is Canada's only national, not-for-profit insurer. It is also the country's only payer-provider—meaning it is the only insurer to offer health care services, insurance and reimbursement all in one place. Leveraging this expertise, later this year, GreenShield will be launching a first-of-its-kind digital health and benefits ecosystem, GreenShield+, which will integrate its payer-provider offering and reinvent the health care and benefits experience.

Accessibility is one of the greatest challenges facing Canada's health care system today. One in five Canadians doesn't have a family physician, and for those who do, immediate care is not guaranteed. Over the past 30 years, the average wait time between referral and treatment has increased by almost 300 per cent.

GreenShield aims to change that. GreenShield+ will offer streamlined, connected care that is fully integrated with its benefits plans. Beyond the company's long-time health and dental benefits, GreenShield+ will empower Canadians by providing direct access to its mental health, digital pharmacy and telemedicine services—all available in the palms of their hands.

"It's not just about simplifying the experience," says Zahid Salman, president & CEO of GreenShield Canada. "It's about improving health outcomes and enabling better health for all by changing mindsets about what better access and integration can look like."

The pandemic accelerated the demand for virtual care. "Through our research, we've found that 90 per cent of Canadians have either used a digital health service or are open to using one," says Salman. "Additionally, 60 per cent wish they could access all of their health care services in one place."

GreenShield+ was designed to address these emerging demands by bridging the gap between payers and providers in a way that enables health care services to talk to each other and to the user's benefits plan, redefining what care can look like in Canada. "As a not-for-profit social enterprise, our focus on better health for all is driven by an altruistic goal," says Salman. "Our top priority is to generate $75 million of social impact investments by 2025, to positively impact the lives of at least one million Canadians. We are uniquely positioned to focus on what Canadians need because, as a not-for-profit, our only focus is Canadians and their health and well-being."

By honing in on communication and collaboration among health care providers, GreenShield+ is designed to ensure Canadians can maximize the value of their benefits by accessing comprehensive, integrated care that considers their diverse health needs. By proxy, this approach results in improved health outcomes and sets a new standard of care that considers all the experiences and challenges Canadians are facing when it comes to their health.

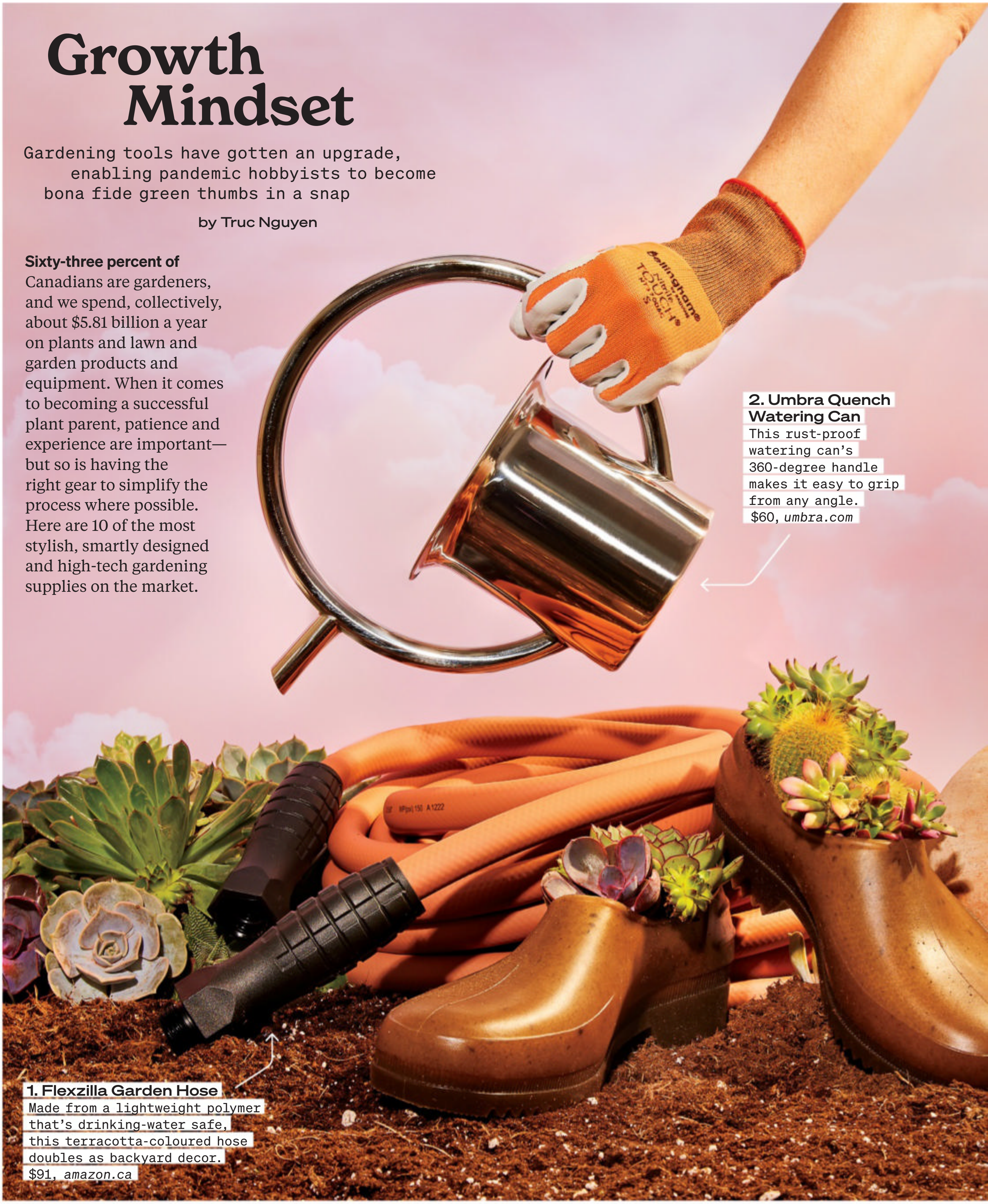
Anticipated for nationwide release later this year, GreenShield+ is poised to reinvent the health care and benefits experience.

Growth Mindset

Gardening tools have gotten an upgrade, enabling pandemic hobbyists to become bona fide green thumbs in a snap

by Truc Nguyen

Sixty-three percent of Canadians are gardeners, and we spend, collectively, about $5.81 billion a year on plants and lawn and garden products and equipment. When it comes to becoming a successful plant parent, patience and experience are important—but so is having the right gear to simplify the process where possible. Here are 10 of the most stylish, smartly designed and high-tech gardening supplies on the market.



2. Umbra Quench Watering Can
This rust-proof watering can's 360-degree handle makes it easy to grip from any angle.
$60, *umbra.com*

1. Flexzilla Garden Hose
Made from a lightweight polymer that's drinking-water safe, this terracotta-coloured hose doubles as backyard decor.
$91, *amazon.ca*

3. Plasticana Gardana Clog

Plasticana's waterproof gardening shoes are made in France from fully recyclable hemp plastic. $78, *drakegeneralstore.ca*

4. La Crosse Wifi Weather Station

Track the temperature, humidity, wind and rainfall in your yard with an all-in-one set-up that sends data to your phone. $189, *leevalley.com*

5. Click and Grow Smart Garden

This planter features a water tank and LED lighting system, so you can successfully grow outdoor herbs and flowers indoors. $260, *bestbuy.ca*

PHOTOGRAPHS BY KATE INCE; STYLING BY NICOLE BILLARK; (SIDEBAR) COURTESY OF CANADIAN TIRE, MODERN SPROUT, PLANTA, DUPRAY, INDIGO

EASY BEING GREEN

More great garden gear

6. Worx Landroid Robotic Lawn Mower

This hands-free app-controlled lawnmower can tackle yards of up to an eighth of an acre. $1,300, *canadiantire.ca*

7. Modern Sprout Smart Landscape Growframe

Display your plant babies like works of art in this LED vertical garden frame. $390, *modernsprout.com*

8. Planta Plant Care App

The highly rated Planta app tells you when it's time to water, fertilize, mist, clean and even repot your plants with the snap of a pic. From $8 a month, *getplanta.com*

9. Dupray Air Purifier

This decorative planter inconspicuously removes 99.97 per cent of airborne pollutants from your home. $300, *dupray.ca*

10. Oui Self-Watering Spikes

Skip the house-sitter and use these clay spikes to keep potted plants hydrated while you're away. $29.50 for set of three, *indigo.ca*

From ancient Egyptian senet
to modern-day role playing,
board games have evolved into
a multi-billion-dollar industry

Game Time

by Andrew Cruickshank

The rattle of dice, arguments over rules and game pieces, the elated cry of the winner—it's all part of the board-game experience. But we're not playing your grandmother's version of Monopoly anymore. Role-playing games, such as Dungeons & Dragons, and smartphone board games, like Alchemists, have modernized the category, and experts say the industry is in its golden age—a period of popularity not seen since the 1980s. The global board-game market is expected to grow by 11.5 per cent in the next four years, reaching a value of US$26.68 billion, according to market-research company IMARC Group. We charted the ups and downs of the industry and asked experts where they think it is going next.

↑ High

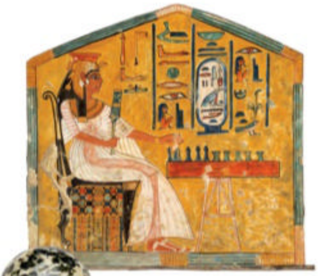
3100 BCE HISTORY'S OLDEST BOARD-GAME PIECES DATE BACK TO THE BRONZE AGE

Archaeologist Haluk Sağlamtimur, a professor at Türkiye's Ege University, uncovered 49 carved board-game pieces in 2013 at Başur Höyük, a burial mound in the country's southeast. The pieces are believed to be the oldest in existence, and they were carved in the shapes of pigs, dogs, spheres and pyramids. It's unknown what game they were used for, but similar ones have been found in Syria and Iraq, leading experts to believe that the Fertile Crescent, a region in the Middle East, could be where board games were invented.

↑ High

2000s BCE BOARD GAMES GET THE ROYAL TREATMENT

Egyptian nobles in the Old Kingdom played senet, a board game that consisted of 30 squares arranged in three rows on boards made of ebony and ivory. Historians speculate on rules, but they're believed to have been similar to backgammon's. Eventually, senet trickled down to the masses, who scratched squares into the dirt. It was so popular that King Tutankhamun was buried with four senet boards to play with in the afterlife.



↓ Low

1904 MONOPOLY'S INVENTOR LOSES BIG

Elizabeth Magie, a stenographer in Washington, D.C., was disillusioned by the greed of businessmen like Andrew Carnegie and J. D. Rockefeller. She created The Landlord's Game to highlight the income inequalities she saw. A New York company published the game, which caught the attention of a salesman from Pennsylvania, Charles Darrow. He created his own version, called Monopoly, and sold it to Parker Brothers. Worried about its similarity to The Landlord's Game, Parker Brothers paid Magie $500 for her patent. Royalties from Monopoly made Darrow a millionaire.

↑ High

1964 BACKGAMMON ATTRACTS A MONEYED CROWD

Russian prince Alexis Obolensky elevated backgammon when he started an international tournament in the Bahamas that caught the attention of celebrities. He went on to establish the World Backgammon Club in Manhattan and opened Oby's, a Miami backgammon parlour frequented by Lucille Ball and Jimmy Connors. By 1977, the tournament had a prize of $50,000 (twice as much as the first-place prize at Wimbledon that year).

↓ Low

1989 "YOU'RE FIRED!": DONALD TRUMP RELEASES A BOARD GAME

Before The Donald entered politics, he released Trump: The Game. The board game was conspicuously similar to Monopoly, and it didn't make a splash when it first hit shelves. It reportedly only sold 800,000 copies—much less than the two million unit goal. Trump re-released it in 2004 after the premiere of his reality show, *The Apprentice*, with an updated box cover and the slogan "I'm back and you're fired!"

I'M BACK AND YOU'RE FIRED!
TRUMP
THE GAME

ILLUSTRATION BY DANIELE CASTELLANO; PHOTOGRAPHS COURTESY OF (MARBLES, SENET) THE MET, (ELIZABETH MAGIE) WIKIPEDIA, BY (TRUMP) BRIAN ZAK/GETTY

32 mil

The number of copies of Catan sold worldwide as of 2020

↑ High

1995 CATAN CHANGES GAMEPLAY

Prior to the 1990s, the North American board-game market was dominated by the classics: Monopoly, Connect Four and Life—games that relied primarily on luck. But that changed when Klaus Teuber, a German dental technician, released Settlers of Catan, which involves building a thriving colony on the fictional island of Catan. It's considered one of the first Eurogames—board games that rely more on strategy and require players to compete over points or resources rather than eliminate one another. As of 2020, Catan had sold more than 32 million games.

↓ Low

2002 BOARD GAMES HAVE A WHITENESS PROBLEM

The game Puerto Rico let players act as European tycoons, transforming the land into an imperial settlement. Players were assisted by "colonists," represented by brown disks, that worked on plantations—in other words, slaves. The game, created by German designer Andreas Seyfarth, faced backlash for its white-centred narrative—something that plagues the industry. Research shows that more than 90 per cent of the top board games were designed by white men.

↑ High

2012 TABLETOP BRINGS BOARD GAMES TO THE INTERNET

TableTop, a YouTube show in which American actors Wil Wheaton and Felicia Day invited famous guests to play games, garnered around 123 million views in its five-year run. The show brought new titles, such as Codenames and Pandemic, to the general public's attention, making sales skyrocket. *TableTop* was so popular that when it launched a fundraising campaign on Indiegogo in 2015 to pay for the show's third season, the campaign raised four times its goal, making nearly US$2 million.

↓ Low

2022 BOARD-GAME FUNDING HITS A LOW

Designing games isn't often lucrative. Publishers pay designers in royalties, around five to eight per cent on each game sold. To finance new games, designers often rely on crowdfunding: Board games are one of Kickstarter's biggest categories, with over 39,000 projects currently raising funds. The platform most notably raised over US$9 million for Marvel Zombies. But 2022 saw a drop in fundraising, with Kickstarter reporting a US$33 million decline compared to 2021—something it attributes to the economic climate.

ASK THE EXPERTS

What will board games look like in the future?

JAY CORMIER
FOUNDER AND CEO OF OFF THE PAGE GAMES

"Game publishers are looking for a cool hook—it could be a component, like a 3-D board, or a new way to play. Some games are using apps to augment reality. There's one called Chronicles of Time where you scan a QR code and use your phone to look around a crime scene. Gamers love immersive experiences like that, so new games will have to change up gameplay to grab their attention."

TANYA POBUDA
COMMUNICATION AND CULTURE RESEARCHER AT TORONTO METROPOLITAN UNIVERSITY

"Leisure time is being eroded as many of us are working longer hours than we did 10 years ago. If these labour patterns persist, the future is 'micro games' that are quick and easy. For example, Button Shy Games makes 18-card games that come in a vinyl wallet. You can pop them into your lapel pocket or your purse and play them at lunchtime or during a coffee break."

SPOT ILLUSTRATIONS BY DAVID SPARSHOTT; PHOTOGRAPHS BY (LAPTOP, CATAN) ISTOCK

E-commerce pioneer SSENSE
is redefining how a digital-first
company comes together IRL

ELEMENTS OF STYLE

by Caitlin Agnew

Montreal-based retailer SSENSE has a global following not just for its curated selection of streetwear and luxury fashion but also for its distinct point of view—cool, confident and cutting edge. It's an unmistakable vibe that's consistent at all touch points: on its clutter-free website and app, at its David Chipperfield-designed flagship store in Old Montreal and in its unassuming corporate headquarters in the Garment District. "Our office is very understated, which is a lot of what we're about," says chief people officer Julie Forman.

An early adopter of a less-is-more aesthetic, SSENSE fashioned its open-concept space in a brutalist style. It was designed by local firm Atelier Barda, which created custom fixtures like concrete Chabanel chairs that sit amid dozens of tropical plants in black resin planters. You won't find any blue-chip artwork on the white walls or any corner offices or other status signalling; members of the C-suite share the same space as every other staff member, and the flashiest thing about it is its unobstructed view of the city, stretching from Olympic Stadium to St. Joseph's Oratory.

In the two decades since CEO and co-founder Rami Atallah created the e-commerce platform as part of his graduate thesis in computer engineering at Polytechnique Montréal, SSENSE has become a world-class retail leader, achieving a $5 billion valuation in 2021. Its fashion offerings—which focus on luxury houses like Balenciaga, Gucci and Saint Laurent and emerging brands like Jacquemus and Chopova Lowena—have been rounded out by additional categories, including pet products, housewares, personal-care items, tech and kidswear, over the past four years.

Since moving to its current address from a previous space a few blocks away in 2013, the company has expanded across three storeys of the building,

PHOTOGRAPH BY RICHMOND LAM

When the company shifted to a hybrid model, its real estate team prioritized open-concept meeting spaces taking up a total of 16,000 square metres. The multiple groups that work there range from legal, finance, HR, merchandising, marketing and customer-experience personnel to a tech team of 300 dev-ops and data engineers, quality-assurance testers, user-interface designers and product experts.

During the pandemic, renovation plans were reconfigured to accommodate a hybrid work model, which was officially put in place last year. Most of the company's 1,800 employees—who are based in Montreal, Toronto, New York City, Dallas and London—work remotely, but those based locally can choose when to use the office. "It's really about letting employees decide how to spend their time and when they need to collaborate in person with colleagues," says Forman, who joined SSENSE last year after working at organizational-consulting firm Korn Ferry.

The company's real estate team created open areas with flexible seating configurations, like communal tables, mobile desks and window counters with stools, as well as spaces dedicated to meetings, including an auditorium that seats up to 500, and a quiet area for deep work.

There are also a whopping 39 on-site photography studios, with even more located at the company's fulfillment centre 10 kilometers away. In these lively spaces, a cacophony of music and upbeat chatter fills the air as photographers capture as many as 1,500 brand-new products per day for the website. In short, it's a fashion lover's paradise. "It's probably the largest closet in Montreal," says Forman.

↰ The minimalist reception area is flooded with natural light thanks to wall-to-wall windows

↱ A high volume of people and goods is always flowing through HQ, so biometric scanners were installed for extra security

In the 10,700-square-metre studio space, team members work on uploading photos and descriptions of new arrivals to ssense.com

> “It’s about letting employees decide how to spend their time and when they need to collaborate in person”

Architecture and interiors firm Atelier Barda brought in custom furniture

PHOTOGRAPHS BY RICHMOND LAM

CB INNOVATION AWARDS 2023

THE BEST OF THE BEST

On April 6, *Canadian Business* hosted the first annual CB Innovation Awards luncheon, welcoming 150 guests at the Toronto Region Board of Trade's new downtown office and event space overlooking the Toronto waterfront. Bringing together Canada's senior business leaders and emerging entrepreneurs for exclusive networking, enlightening panel discussions and an awards presentation, the event was supported by signature sponsor BMO Financial Group, thought-leadership partner Google Canada and patron-table supporters Amazon Canada, the TMX, Uber Canada, UHN Foundation, Air Canada, the DMZ, Incepta Solutions, RBC Mydoh, MinervaAI and Microsoft Canada.

Following a welcome reception and VIP networking session, the main event kicked off with a fireside chat between Pinterest's Kristie Painting and executive Trinh Tham, who discussed the importance of authenticity and vulnerability when leading an organization through change. Attendees were then invited to sit for lunch, provided by Oliver & Bonacini, during which BMO's Mike Bonner delivered a keynote address on the power of purpose in driving innovation. Next, guests heard from a panel featuring Pedro Barata (Future Skills Centre), Isabelle Hudon (BDC), Laura Pearce (Google) and Ana Serrano (OCAD).

Charlotte Herrold, editor-in-chief of *Canadian Business*, closed the event by announcing the 2023 CB Innovation Awards winners, selected in partnership with the Brookfield Institute for Innovation + Entrepreneurship. Read more about the 2023 recipients on page 48.

To learn more about upcoming events, visit **canadianbusiness.com/corporate-memberships**.

Guests from the Brookfield Institute, SSENSE and Intuit joined *CB*'s Charlotte Herrold and Laura Hensley (far right)

INNOVATION
AWARDS
2023
SUPPORTERS
Uber
AIR CANADA

Editor-in-chief of *Canadian Business* Charlotte Herrold

BMO
Google
Pedro Barata
Laura Pearce

CB
INNOVATION AWARDS 2023
THE BEST OF THE BEST
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Mike Bonner, head of business banking at BMO, delivered a keynote address on innovating in small business

Guests from Doggos, SJR and Smoke & Tears joined *CB*'s Jason Maghanoy and SJC Media's events team, Chantal Roy (back left) and Yomi John (back right)

C-suite executive Trinh Tham (left) led a fireside chat with Pinterest Canada's Kristie Painting

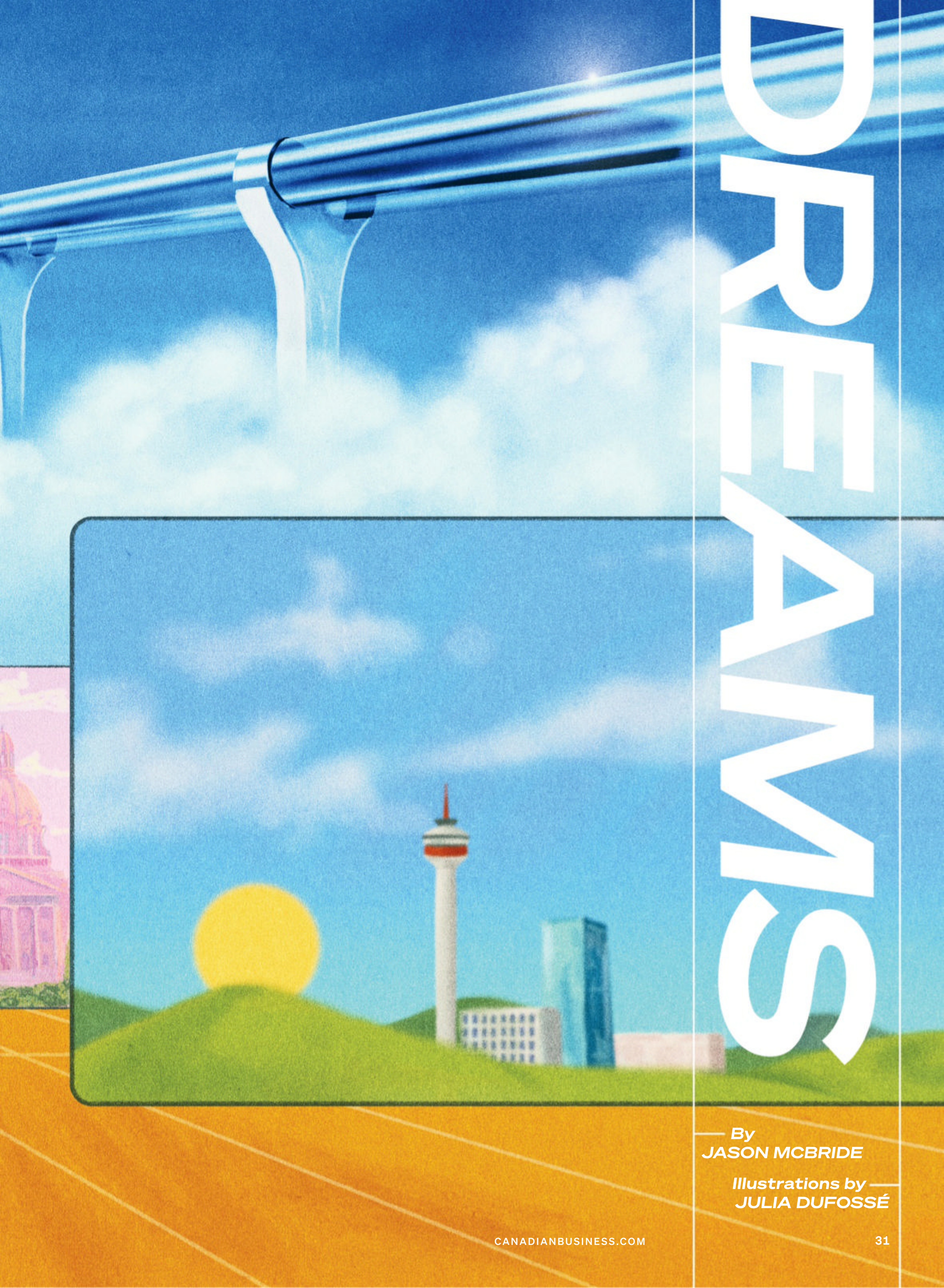
CB publisher Jason Maghanoy (right) moderated a thought-leadership panel on reskilling and upskilling

Team members from Incepta Solutions, one of the 2023 CB Innovation Awards winners

CB
INNOVATION AWARDS 2023
BMO
Google

PIPE

Ever since Elon Musk first floated the idea of a hyperloop—a vacuum-tube-train network that's faster, greener and cheaper than air travel—companies around the world have been racing to develop this utopian world-changing technology. Will Toronto-based TransPod get there first?



DREAMS

By
JASON MCBRIDE

Illustrations by
JULIA DUFOSSÉ

IN 1904, A STUDENT AT WORCESTER POLYTECHNIC INSTITUTE NAMED ROBERT GODDARD WROTE A PAPER ON THE SUBJECT OF "TRAVELLING IN 1950." UNDER THE SPELL OF SCI-FI WRITERS LIKE H. G. WELLS, GODDARD HAD LONG BEEN FASCINATED BY THE IDEA OF SPACE TRAVEL, BUT IN THIS PAPER, HE PROPOSED SOMETHING BOTH EARTHBOUND AND OTHERWORLDLY: A STEEL VACUUM TUBE IN WHICH PASSENGERS COULD BE ZIPPED AROUND AT IMPOSSIBLY HIGH SPEEDS IN SMALL VEHICLES.

Thrust, Goddard argued, can occur in a vacuum; the vehicles would be driven by the attraction and repulsion of electromagnets. At a moment when cars were just in the ascendant and commercial jet travel still decades away, it seemed like an outlandish—even magical—idea. But Goddard believed that once it came to fruition, it would be "the fastest possible travel for living bodies on the earth's surface."

Goddard would go on to design and build the first liquid-fuelled rocket and become known as the father of modern rocketry. His vacuum-tube system, however, would not appear in 1950. Nor would it appear in 1960 or 1970 or even 2000. While dozens of engineers as well as inventors with various eccentricities and accomplishments flocked to the idea and the odd company tried to develop it—the U.S.'s ET3 and Switzerland's Swissmetro SA came closest—it seemed destined to remain a kooky footnote in the history of 20th-century transportation.

And then along came Elon Musk. In 2013, the Tesla and SpaceX CEO—no stranger to kookiness himself—published a 58-page white paper that revived and refined Goddard's original vision. Musk called his open-source concept a "hyperloop," proposing a near-supersonic tube-and-capsule line that would whisk passengers from L.A. to San Francisco in 35 minutes (compared to six hours by car). He likened the system to an improbable combination of the Concorde, an air-hockey table and a rail gun. Perfected and properly rolled out, he wrote, the hyperloop would be a faster, cheaper and cleaner alternative to flying, driving or high-speed rail. The paper outlined obvious obstacles to such a system (it's almost impossible to create a vacuum in a 350-mile-long tube; how would you power such a thing?) but also some possible solutions: create a near-vacuum instead and put solar panels on top of the tube. Musk said he was too busy to build the hyperloop, but he invited others to try. In the summer of 2015, he announced a competition, and more than 700 student teams from around the world submitted prototype designs. (The competition took place several times, and a team from a university in Munich won on multiple occasions.)

In theory, a hyperloop could, obviously, move people more quickly than ever before. Its evangelists claimed it would completely transform how we live, work, even think. It could allow you to work in, say, Ottawa, shoot down to Toronto for dinner and a show and get home for a reasonable bedtime. Or perhaps you could work in Mississauga but live in Montreal. It could, eventually, give North America a continent-wide subway system, with stops from Halifax to Houston, Anchorage to Albuquerque. It could reduce housing prices, alleviate overcrowding and redraw or even obliterate borders. It could, most significantly, curb carbon emissions. Eliminate the need for short-haul air travel, power your hyperloop with renewables and, voila, you have a cleantech miracle for the transportation sector.

Musk's hype seemed to launch a thousand hyperloop start-ups. From the beginning, they were well capitalized and extraordinarily ambitious, promising to revolutionize the world in just a few short years. Like with the space race, companies and countries feverishly jockeyed to get there first. There was HyperloopTT in L.A., led by Jumpstarter founder Dirk Ahlborn; Nevomo in Poland; and Zeleros in Spain. Firms breathlessly announced plans for networks in India and the Great Lakes region. The highest-profile start-up (or at least the one with the most money) was Hyperloop Technologies, co-founded by the controversial venture capitalist Shervin Pishevar and former SpaceX engineer Brogan BamBrogan. Later known as Hyperloop One and then, in 2017, after Richard Branson joined the board, rebranded as Virgin Hyperloop, it became the first company to successfully move people, speeding a couple of employees along a test track in Nevada in 2020. Days after this, the Korea Railroad Research Institute announced that it had achieved a speed of more than 1,000 kilometres an hour in a scale model "hyper-tube train."

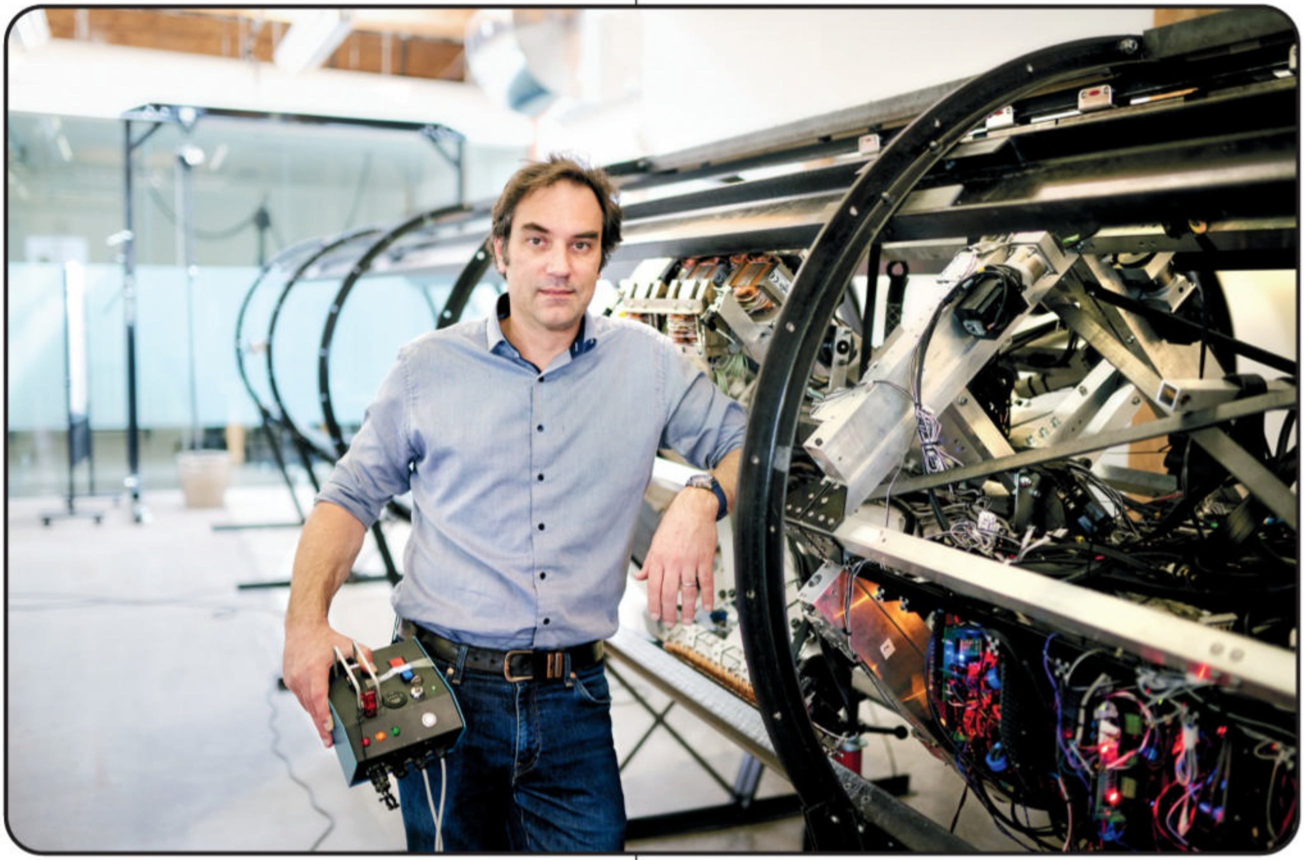
In 2021, South Korea said it would launch a hyperloop line between Seoul and Busan sometime in 2024.

A tiny Canadian company called TransPod is hot on its heels, poised to build North America's first hyperloop network. Founded in 2015 by Sebastien Gendron, a French aerospace engineer, and Ryan Janzen, a researcher and inventor, TransPod has been slowly but surely raising capital, perfecting its design and grappling with regulations. Three years ago, the start-up signed a memorandum of understanding with the Alberta government for a hyperloop line that would carry both cargo and people between the Calgary and Edmonton airports. It normally takes about three hours to drive between the two cities and an hour to fly; TransPod passengers would zip across that distance in just 45 minutes. Not only that, but the project, which TransPod said would take 10 years to build, promises to create up to 140,000 jobs and reduce Alberta's carbon emissions by 636,000 tonnes a year.

The memorandum spurred a whole new scale of investment. In March of 2022, the Broughton Capital Group, a U.K.-based debt financier, in co-operation with China-East Resources Import and Export Co., or CERIECO, ponied up US$550 million. A few months later, in July, TransPod unveiled a scale prototype of the FluxJet, its proprietary hyperloop vehicle, which Gendron describes as an "airplane without wings." If all goes well, according to Gendron, the province will have an operational intercity hyperloop line by 2035.

In person, Gendron is disarmingly modest, clear-headed and decidedly unkooky—the anti-Musk. He's an excellent pitchman: persuasive but not pushy, all seduction and no smarm. His gentle demeanour belies an almost quixotic belief in hyperloop technology and a unique determination. Like all hyperloop companies, TransPod has run into its share of obstacles: lack of investment, derisive skepticism, governmental indifference. But all this has only emboldened Gendron, who sees in the FluxJet not just a way to change the course of modern transportation but also a vehicle that will galvanize innovation and greater risk-taking. "I'm not good with the status quo," he said. "When everyone's going left, I go right." With TransPod, Gendron isn't just going right: He's travelling into uncharted territory.

WORKING IN A VACUUM Sebastien Gendron, the founder of TransPod, says the comany's hyperloop system will zip passengers between Calgary and Edmonton in 45 minutes



PHOTOGRAPH BY JANICK LAURENT

TRANSPOD'S CURRENT HEADQUARTERS are in a modest building at the edge of Liberty Village, in Toronto's west end. The company occupies half the space; the other side is taken up by a virtual-golf-practice facility. It's a compelling 21st-century contrast: On one side, scientists are strenuously trying to make real something that's only ever existed in the imagination; on the other, real-life duffers are improving their handicaps on computer-generated driving ranges and putting greens.

I met Gendron at the office in late February. When I arrived, he immediately whisked me into a lounge area where we sat on black couches. The real action was to our immediate right. There, taking up over half the airy office space, was a long metal scaffolding upon which rested the prototype version of the FluxJet. It looked like a gleaming white missile, with a hatch open to expose the guts of one of its engines. A couple of engineers periodically poked and prodded the thing, as if it were a zoo animal they were trying to rouse from sleep.

The now 43-year-old Gendron moved to Canada in 2010, but his French accent is undiminished. The day we met, he looked ready for a windswept trip on a yacht: long-sleeved T-shirt with pale-blue stripes, jaunty brown boots. While he's certainly capable of a Gallic moue—particularly when talking about unimaginative, risk-averse governments—he is more likely to be cordial and self-effacing. After we sat down, he started to offer me coffee before remembering that they had run out.

Gendron spent much of his childhood in Brittany, but his parents, who worked in the hospitality industry, moved the family often—West Africa, Singapore, South Korea. As a kid, he loved all the flying and dreamed of becoming a jet-fighter pilot. When he got older, that fantasy morphed into something more practical. Gendron became an aerospace engineer, eventually finding work with Airbus in Toulouse. But after a few years, he felt constrained. He was not, as he says, "a good employee." He got to work on planes, which he enjoyed, but he loathed the culture of the corporate world and was dismayed that so many of his colleagues were simply working for the weekend, coasting along until they retired. He also didn't like being told what to do, being a cog in a massive machine. "The conventional life—I'm not happy with that," he told me.

When the opportunity to do something even just a bit different came, he grabbed it, taking a job at Bombardier in Montreal in 2010. Just a few weeks in, though, he was unhappy again. A couple of years later, he transferred to Bombardier's plant in Downsview, in north Toronto. But by then, he had already begun plotting his exit.

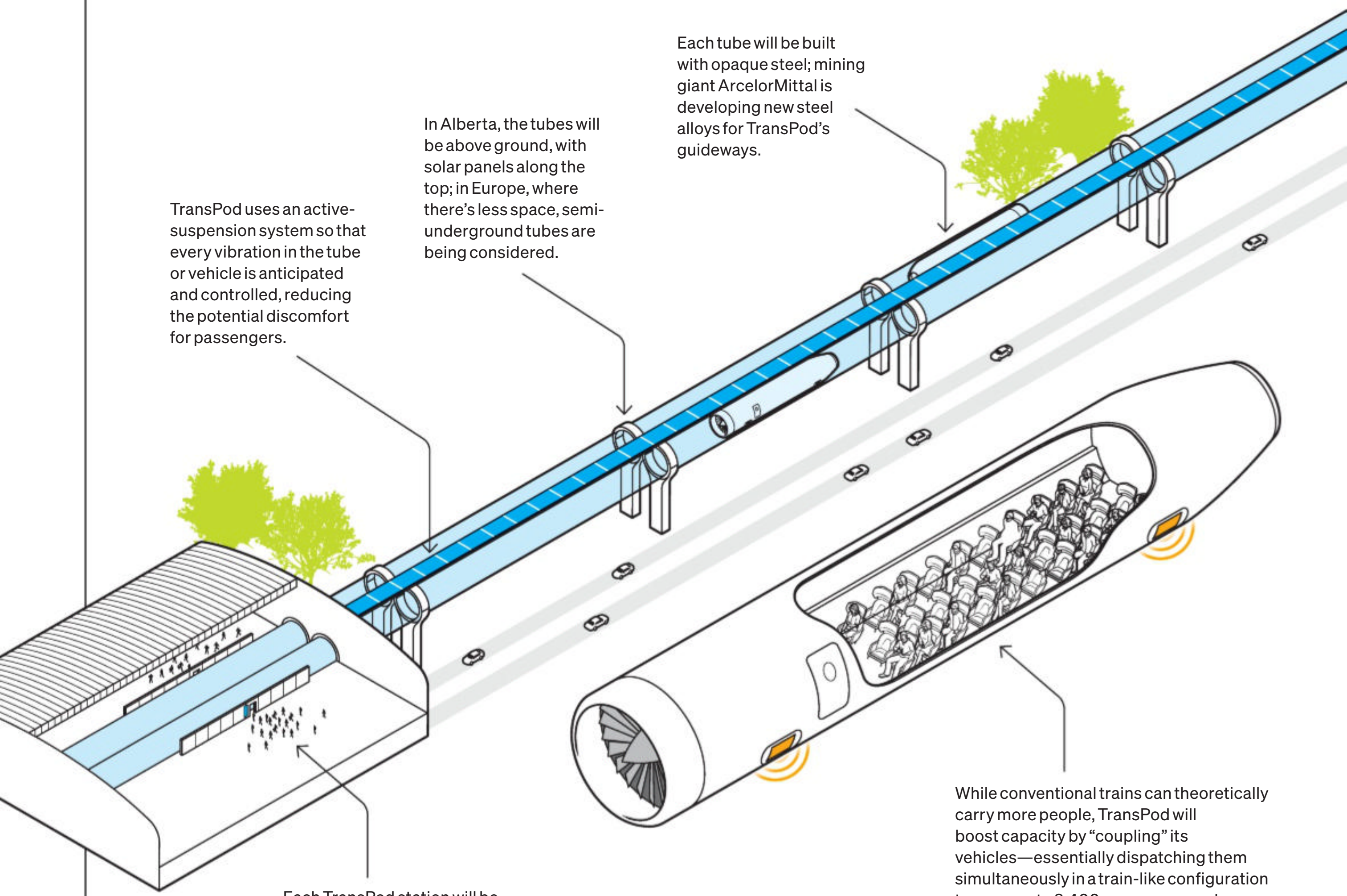
He wanted to start his own company, to do something big and meaningful. At one point, he considered starting a discount airline, something that he felt Canada didn't really have. Then he stumbled across videos showing the vacuum-train concept developed by Swissmetro SA in the late '90s. It was a proposed underground-transit system that would have connected Switzerland's main cities using electric motors and magnetic levitation. To Gendron, as to most people, the technology seemed too good to be true. "When you look at it for the first time, it's like science fiction," he told me. In Swissmetro SA's case, it *was* too good to be true; when the 2008 financial crisis hit, the company was wiped out.

A few years later, however, Gendron met a researcher named Ryan Janzen, who'd done pioneering work in electric-vehicle propulsion and sensory perception, among other things. Both understood the technology, but Janzen was the technical and design whiz. Gendron, meanwhile, had the soft skills—he knew how things were financed and built, how to structure a company and how to lobby.

When Musk's hyperloop competition was announced, Gendron thought it was the perfect way to put these skills to the test. Though not Musk's biggest fan, Gendron knew that his imprimatur and investment gave the whole vactrain concept some badly needed legitimacy. In their spare time, Gendron and Janzen began researching and sketching out a design. At the very least, they might get some money out of Musk and Gendron could start his company.

That didn't pan out, though, because Musk later changed the rules of the competition, making only student teams eligible. But by then, Gendron and Janzen had what they thought was a viable design. It was also unique. Every hyperloop system has three key components: power transmission, levitation and propulsion. Janzen figured out that in a low-pressure environment like a

"I'M NOT GOOD WITH THE STATUS QUO," SEBASTIEN GENDRON SAYS. "WHEN EVERYONE'S GOING LEFT, I GO RIGHT."



TransPod uses an active-suspension system so that every vibration in the tube or vehicle is anticipated and controlled, reducing the potential discomfort for passengers.

In Alberta, the tubes will be above ground, with solar panels along the top; in Europe, where there's less space, semi-underground tubes are being considered.

Each tube will be built with opaque steel; mining giant ArcelorMittal is developing new steel alloys for TransPod's guideways.

While conventional trains can theoretically carry more people, TransPod will boost capacity by "coupling" its vehicles—essentially dispatching them simultaneously in a train-like configuration to carry up to 8,400 passengers an hour.

Each TransPod station will be intermodal and able to shift effortlessly between cargo and passenger, and every future line or corridor will have a stop at an airport.

ILLUSTRATION BY CHRIS PHILPOT

vacuum, air conducts enough electricity to fully power a vehicle. The levitation would be created through the precisely controlled repulsion and attraction force of electromagnets embedded on the top of the vehicle itself, with four engines on the bottom. (Other hyperloop systems use maglev, or magnetic levitation, but their magnets are located on the vehicle *and* on the tube, a process that's already used on some high-speed trains and that Gendron argues is far more expensive.) The propulsion, meanwhile, would come from linear-induction motors comparable to the ones used in Vancouver's SkyTrain.

The electrified vehicles would be enclosed pods, zipping through an opaque steel tube built high above ground. The pods would accommodate up to 54 passengers or be used to ship up to 10 tonnes of cargo. Though the pods would travel at speeds of up to 1,000 kilometres an hour, they would be completely safe and comfortable. Ticket prices would be cheaper than air travel—going from Toronto to Montreal would cost about $100. The price tag (as of this writing anyway) would be US$18 billion for the first network, which includes $30 million for infrastructure, $30 million for land and construction and $60 million per kilometre of track.

Gendron left Bombardier and, with Janzen, co-founded TransPod in 2015 to commercialize their design. A couple of months later, the start-up made the front page of the *Toronto Star* business section, suggesting it would have a working model by 2020. A hyperbolic headline promised 30-minute travel from Toronto to Montreal. Invitations to present TransPod's design came, followed by US$15 million in seed investment from Angelo Investments, an Italian VC firm.

TransPod embarked on studies—in 2017, the company said it could build a line from Toronto to Windsor for half the cost of a high-speed rail line—and, in 2019, announced the construction of a three-kilometre-long test track and additional research facility near Limoges, France. After the initial seed money, securing additional capital was difficult. They received some support from the European Regional Development Fund but little other government funding.

Shovels didn't go into the ground in Limoges until 2022, when the company began building a research centre and test track.

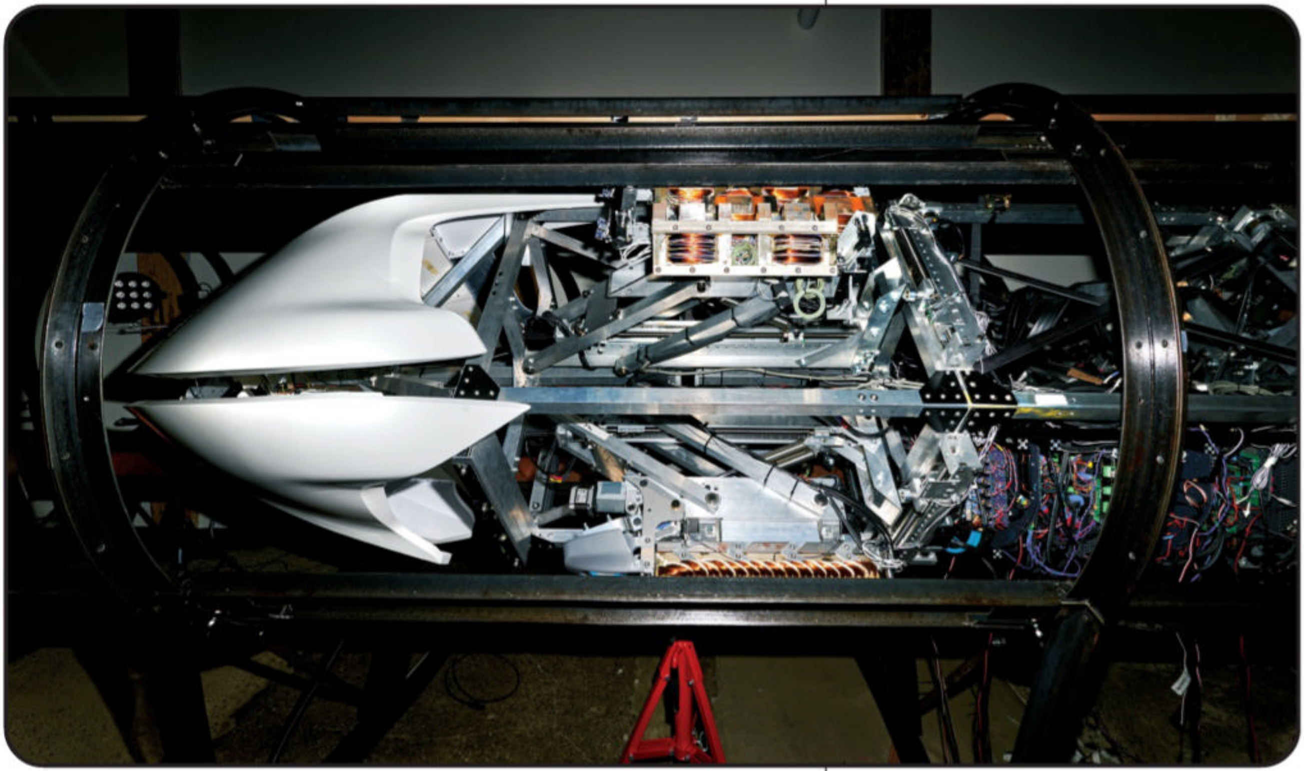
Like any unproven technology, hyperloop was polarizing. While proponents like Musk and Branson touted its revolutionary societal benefits, equally vocal skeptics argued that the whole thing was yet another techno-futurist fever dream, an absurdly expensive, overhyped distraction from the unglamorous, necessary work of improving existing public transit and infrastructure. A 2020 Transport Canada report concluded that hyperloop was not ready for prime time. Even when the FluxJet was first revealed last year, some pundits continued to question the viability of the tech. On the Transport Action Canada blog, Michael Olivier, a founder of the South Etobicoke Transit Action Committee, called TransPod "vapourware"—that is, still only conceptual.

Shoshanna Saxe, a professor in the University of Toronto's department of civil and mineral engineering and Canada Research Chair in Sustainable Infrastructure, insists that whether or when the technology does work is irrelevant. "We have this really great invention called public transit," she says. "It's totally revolutionary and amazing and has been around for decades." Properly funded high-speed rail, she says, would solve the same problems that TransPod purports to be solving: reducing GHGs and moving people more quickly. The investment TransPod received could be put to good use *now*, she argues, rather than diverted into tech whose theoretical existence seems far in the distant future. "It's much more effective to roll out existing technologies because we know how to build them," Saxe says. "People know how to use them. There's robust manufacturing and supply chains. When you're switching to something new, you have to rebuild all those things from scratch."

Other industry experts see TransPod as yet another form of high-speed rail but one that's more thrilling and potentially transformative. "Finally, there's a little bit of sex appeal in our rail sector," says Josipa Petrunic, CEO of the Canadian Urban Transit Research & Innovation Consortium, a non-profit devoted to sustainable transportation options. "We, as

TRANSPOD'S FLUXJET WILL TRANSPORT PEOPLE SAFELY AND COMFORTABLY AT SPEEDS OF 1,000 KILOMETRES PER HOUR, SAYS GENDRON

THE NEED FOR SPEED The FluxJet (whose prototype is shown below) is what Gendron calls "an airplane without wings"

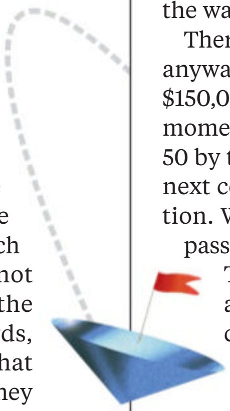


PHOTOGRAPH BY JANICK LAURENT

Canadians, have just been desperately underserved by rail. We've let it atrophy. And TransPod is at the highest end of passenger-rail innovation." Petrunic says that while TransPod will be in competition with short-haul air travel and shipping, it will likely be beholden to rail's regulatory framework, and its infrastructure will be built in the same place as rail corridors. Indeed, one condition of TransPod's deal with Broughton and CERIECO is that if the technology ultimately fails, TransPod will be required to build a conventional high-speed rail line so that the investors can recoup at least some of their money. "You know, 10,000 things might go wrong," says Petrunic. "The money might not materialize. But at least we're talking about rail as a viable solution as opposed to aerospace or auto."

To get the FluxJet to market, admitted Gendron, the company still has at least three to five years of work to do—mostly design phases to demonstrate the vehicle's safety. But when I brought up the various criticisms of the project that I'd heard and read, Gendron quickly batted them away, basically saying any haters could come down to the TransPod office and see what they were up to for themselves. The ultimate proof, he argued, is in the financial pudding. "Developing cleantech is nice," he said. "But investors are not giving out blank cheques." To raise the money they had raised, in other words, they had to adequately prove both that their technology could work and that they had a sound business model. The first was still to a certain extent an article of faith, a work-in-progress. But the second, when Gendron patiently broke it down, seemed to be common sense. Conventional high-speed rail is great, he argued, but it is also, in many parts of the world, an unprofitable public service and, consequently, subsidized by government. For high-speed rail to be built in Canada, it too would require a lot of taxpayer investment to build out the infrastructure. TransPod, in contrast, is willing to take on all the risk.

And the company would, according to Gendron at least, be profitable—eventually. TransPod would be able to repay the US$18 billion in finance debt within 20 years through a combination of cargo and passenger revenue. Conventional passenger rail can only make revenue through its ridership, so TransPod plans to keep its vehicles full almost 24-7, serving passengers during regular commuting times and shipping packages at all other times. The company is currently in talks with DHL Canada about a possible partnership. It also expects to get an initial safety certificate from Transport Canada for a vehicle running at 200 kilometres an hour by 2027 or 2028, a threshold that will give investors like Broughton enough of a guarantee that higher speeds, and a longer network, will be feasible. In turn, Broughton would extend much more financing. Other institutional investors would too. Already, Gendron said, the large pension funds were starting to line up. "Everybody wants to invest when the risk is gone," he said.



WHEN I FIRST met with Gendron, he'd just returned from a trip to Dubai. He looked exhausted. While the Alberta line appeared to be moving ahead as planned, they were hardly going to stop there. Once the tech is up and running and clearly viable, work will begin, ideally, on networks they want to build in other parts of the world: Saudi Arabia, the UAE, perhaps Australia. Toward the end of 2022, the company got approval for another corridor, between Dallas and Arlington, Tex., and it's hoping to extend that all the way to San Antonio.

There is a lot to do. The financial worries have, theoretically anyway, subsided, but the company still has a cash burn of $150,000 a month. TransPod has only 20 employees at the moment, and Gendron said they need to hire an additional 50 by the end of the year and between 150 and 200 over the next couple of years. There is also, of course, the competition. While Virgin Hyperloop retreated from its promised passenger service to focus exclusively on cargo, Hyperloop TT continues to pursue a network in the Great Lakes and recently unveiled a second full-scale version of its capsule vehicle. Chinese engineers just successfully tested a high-speed maglev train that travelled at 600 kilometres an hour; it could potentially also be used in vacuum tubes.

I asked Gendron what's kept him going all these years. He paused for a long time and then finally mentioned his hatred of the status quo again. But it was more than that, he said. He wanted politicians to take more risk—not to write blank cheques but to pursue cutting-edge innovation knowing that it could fail. As a society, he insisted, we lack courage. He wants TransPod to lead by example, to show that we could all be more courageous, more ethical, more curious. He likened the whole journey to playing an extreme sport and finally having the finish line in sight. "We're in the last mile. It's not the right time to give up now. It's so close."

The future can take a long time. As we talked, the engineers working on the FluxJet prototype banged away, briefly drowning out our conversation. Seconds later, I watched as it moved backwards a few inches. Then it lurched forward a foot and stopped. It looked like it was gathering speed. I waited and watched.

YOUR FILES ARE ENCRYPTED

HACK JOB

By day, Sébastien Vachon-Desjardins worked for the Canadian government. At night, he was a star hacker in a Russian ransomware group that attacked businesses, held their data hostage and extorted millions of dollars.

BY
SARAH TRELEAVEN

ILLUSTRATIONS BY
MAX GUTHER

ON A FRIDAY NIGHT in August 2020, Arthur Keech was working late from his home office in Vancouver. Keech is an IT manager for Amacon, a large real estate developer. He had only been in the role for about seven months when he received a curious note from one of his colleagues: They had tried to open a network file but couldn't. Keech figured it was an error—someone had screwed up a file name. But when he went to log into the company's operating system, he couldn't. "That's weird," he thought. He used a different login and managed to gain access, but he only needed to take one look to realize he had a big problem.

Keech immediately noticed that all of the file extensions had been changed from the standard .doc to "random garbage." And when he tried to access any of the Windows files, a note popped up: "Hi! Your files are encrypted," it began. Keech's heart was pounding. He knew exactly what was happening: It was a ransomware attack. Someone, or some group of people, had exploited a technical vulnerability or used social engineering—like phishing—to hack into his company's system. The note explained that Amacon's files were locked and threatened to release them to the public. It also said that the hackers had exfiltrated some data, which they planned to leak onto the dark web—an underground version of the internet that is associated with all kinds of unlawful activities—unless Amacon paid up. They directed Keech to a URL that he could use to negotiate the final—at the time unspecified—amount and a Bitcoin wallet into which Amacon was to deposit the payment. "For us, this is just business," concluded the message, which was signed by an anonymous entity called NetWalker.

> "The mental picture is generally of a hacker who lives overseas where intellectual-property laws and hacking laws are much looser. I can't picture any of the IT professionals I've worked with making that decision to become a hacker."

The syntax was clunky and inelegant. The typos were glaring. The upbeat greeting, complete with an exclamation point, was incongruous with the demands being made—as was the insistence that it was nothing personal. The note gave the impression of both haste and careful planning. But the message itself was clear: The business had been hacked and its data was now in the hands of someone controlling things remotely from somewhere in the world.

But Keech knew something the ransomware pirates didn't. At a previous job, he had been subjected to another attack. That experience had made him recognize the need for greater technical protection, so he made it his mission to build out robust security features in the event that something like that ever happened again at his workplace. He knew that it was difficult to completely shut down the possibility of ransomware attacks but that he could decrease the company's vulnerability. In his time at Amacon, Keech also made cybersecurity his top priority. In fact, when the attack happened, he had just finished upgrading his systems by creating a series of offline backups, encrypting sensitive files, patching security vulnerabilities and testing disaster-recovery protocols.

Secure in the knowledge that all of Amacon's files were backed up offline, Keech didn't even bother interacting with the hackers. "It makes you feel like an IT superhero," he says. Still, responding to the attack became an all-hands-on-deck situation. Keech and his team worked for three days straight to restore Amacon's data and systems, searching for the vulnerability that the hackers exploited to gain access. Some of Amacon's files were indeed released on the dark web, but thankfully none included sensitive material. Keech logged on and spent weeks trying to find the files in order to take them down, cruising past articles about how to make your own nuclear weapon. Keech, who describes security as an evolving process, set about implementing further safeguards, like proactively searching for weak points in infrastructure and strengthening them. But the majority of companies, public and private, are not in such a secure position because their cyber defences are less robust.

A year later, the RCMP contacted Keech. They had found the source of the ransomware attack. When he learned the identity of the hacker, he was shocked: It was Sébastien Vachon-Desjardins, a government worker in his 30s who lived in a tidy white home in Gatineau, Que. "The mental picture is generally of a hacker who lives overseas where intellectual-property laws and hacking laws are much looser," he says. "I can't picture any of the IT professionals I've worked with making that decision to become a hacker." By day, Vachon-Desjardins appeared to be a productive—and harmless—member of conventional society, a clean-looking bureaucrat who drove a sensible car. But by night, he was a pirate for NetWalker, a ransomware network that includes affiliates from all over the world—and he was a particularly good one.

When Vachon-Desjardins was finally arrested in January 2021, he was charged with perpetrating similar attacks against a total of 17 Canadian victims—all public institutions or private businesses and most of whom either paid a ransom or suffered significant losses. Much has been made of Vachon-Desjardins's prowess and the scale of his theft. But what his case demonstrates is not simply the damage of one particularly bad actor. Rather, it serves as a warning: Vachon-Desjardins is just one of many. There's a virtual army out there—global and borderless—and there are plenty more attacks in store for our under-defended workplaces, critical infrastructures, public institutions and maybe even your own computer.

A RANSOMWARE ATTACK feels like the call is coming from inside the house. One minute, an employee is working on a computer in what feels like relative privacy. The next, the files and systems they depend on start shutting down incredibly quickly. While the perpetrators hide behind complete anonymity, often operating from several time zones away, victims are suddenly technologically naked—all their information, vulnerabilities, strategies and secrets are scooped up and eligible for display.

"It's analogous to someone breaking into your house, rearranging anything—everything—and then changing the locks so you can't get into your own home," says David Swan, one of the directors at the Cyber Intelligence Defence Centre at the Centre for Strategic Cyberspace + International Studies (CSCIS). And just as there are many ways to break into a home, so too are there many ways to break into a computer. One of the most common is simply sending an email with a link that, when clicked on, provides access to intruders. Once in, those intruders can download anything they want. More commonly, they lock it all down, so files might be visible but there's no way to access them.

It's at this very moment of panic and desperation that the "ransom" part of ransomware arrives. "The evil sticks its head up and says hi," says Swan. "Someone will send a message either on your computer screen or through email saying 'We're the bad guys, and if you send us Bitcoin, we'll give you the keys to unlock your files.'"

Canadian organizations have experienced their own fair share of hacks, including several recent high-profile events. In November, Nova Scotia's Empire Company (which operates Sobeys, IGA, Foodland and other grocers) was subject to a cyberattack that shut down its network. The implications were enormous: Store and warehouse logistics were unmanageable, financial reporting impossible and computer systems inaccessible, with even in-store pharmacists unable to access information. Much of the business was frozen for a week, and Empire called in external cybersecurity experts. It's estimated the attack cost $54 million.

In early February, a devastating ransomware attack shut down Indigo's website and electronic payment systems. For weeks, visitors to Indigo.ca were greeted by a short message directing them to bricks-and-mortar stores, and the company said it was working with a third party to remediate damage. Experts opined that the business was losing millions, perhaps even tens of millions, as it grappled with the fallout. Later, news broke that employee data—including birth dates and social insurance numbers—had been breached. By late February, Indigo's website was once again up and running but still at reduced capacity. Indigo made a public announcement that it had declined to pay the requested ransom to a group it had identified as Russian hackers.

And it's not just private enterprise. In December, Toronto's SickKids hospital was hit by a ransomware attack that delayed lab and imaging results and shut down phone lines—what the organization later referred to as a "Code Grey." Families, many of whom were undoubtedly under unbearable stress, were also told to expect delays in diagnostics and treatment. By early January, about 20 per cent of the priority systems that have a direct impact on hospital operations had yet to be restored.

Ransomware attacks are proliferating for a simple reason: Everything we do is increasingly digitized and stored online. The tools for such hacks—including step-by-step guides, malware, sample ransom notes and even 24-hour tech support—are easy to find in the dark corners of the web, and launching these attacks can be a way to make huge amounts of cash fast. According to the most recent StatsCan data, which included more than 9,000 businesses, 18 per cent of companies were impacted by a cyber-security incident in 2021. The attacks were designed to steal financial information, deface or destroy a company's web presence or track business activity. Of those organizations, 11 per cent said they were subject to a ransomware attack, with nearly two in 10 reporting that they paid a ransom; some forked over more than $500,000. A small proportion of workplaces are spending large amounts of money on cybersecurity, but the majority spend little if anything. In 2021, the private sector spent $9.7 billion on cyber protection, up from $7 billion in 2019. “It’s a huge surge, a 40 per cent increase in spending,” says David Shipley, CEO of Beauceron Security in Fredericton. “And what was the end result of that? In 2021, we had $600 million in losses. That’s up from $400 million in 2019.”

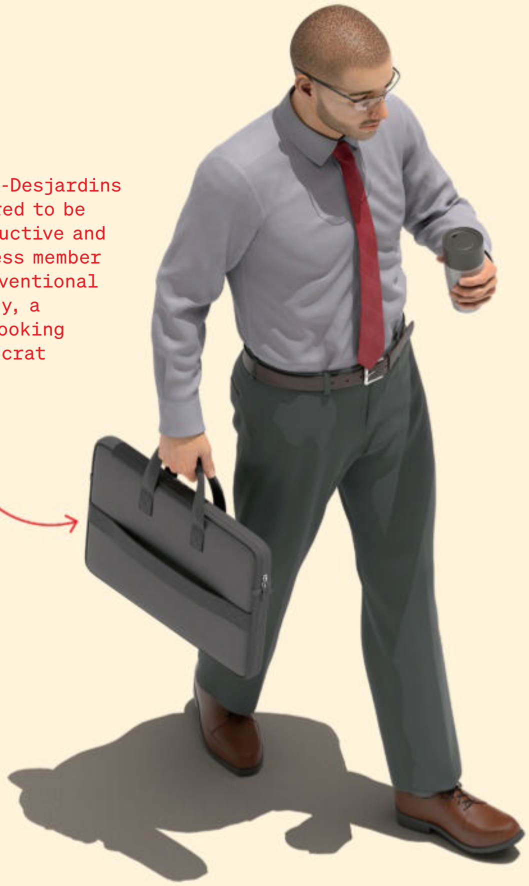
VACHON-DESJARDINS HAS A shaved head and carefully sculpted pectorals, visible even through his shirt. He chose a pragmatic career trajectory, attending La Cité collégiale (now called Collège La Cité), a French-language college in Ottawa, for a degree in computer science. Upon graduation, he found work as a computer analyst at the University of Ottawa and then landed a government job. Most of his work involved providing technical support, helping other government workers who were having a bad day with their computer.

But Vachon-Desjardins showed early warning signs that he was not committed to the straight and narrow. In 2015, at the age of 27, he was charged with seven counts of possession for the purpose of trafficking cannabis, amphetamines, methamphetamines, cocaine, GHB and cannabis resin—some of which he had been trafficking since 2012. Vachon-Desjardins wasn’t just a drug dealer; he was a supplier to sellers and used his home as a central cache for large volumes of substances. When the police raided it, they found more than 45 kilograms of marijuana in a locked room along with over 60,000 methamphetamine tablets, 8,600 grams of hashish, more than 13,000 ecstasy pills, and a money-counting machine. Still, Vachon-Desjardins’s tastes appeared modest; at the time of his arrest, he was making $57,000 a year at his IT job and drove a Toyota Camry. Vachon-Desjardins’s girlfriend told police that he believed he would never face consequences for his actions. “He thought of himself as a god,” she said. After he was released from prison, having served only a fraction of his three-and-a-half-year sentence, he moved back in with his parents, who lived in a two-storey house in Gatineau. In October 2016, despite his criminal record, he secured a new government job when he was hired by Public Services and Procurement Canada.

He continued to live a double life, once again trafficking drugs—something he was busted for a second time in late 2019—while working in the public sector. The FBI believe it was a few months later, while working from home and awaiting drug charges, that he became active with NetWalker. There was clearly something that drew him to a lucrative underworld. And soon he would find a much more profitable black market to be a part of.

Anyone anywhere can be a cybercriminal, and there are few barriers to entry. Vachon-Desjardins was recruited by NetWalker in a strangely mundane way: He answered a classified ad on the dark web. It was posted by someone who used the name Bugatti, and the ad explained that NetWalker was looking for individuals willing to commit ransomware attacks—ideally Russian speakers (which Vachon-Desjardins was not) but mainly people with some technical knowledge and a willingness to skirt the law.

The conventional image of a computer hacker is some lonely nerd sitting in a dark basement, his oversized spectacles illuminated by the blue light emanating from at least two monitors. But ransomware attackers are actually a global network of highly organized criminals with a sophisticated franchise model composed of individual associates. NetWalker first appeared in 2019 and was made up of Russia-based developers as well as affiliates all over the world. The group gained traction during the pandemic by sending phishing emails with a link that, when clicked on, allowed them to exfiltrate and encrypt sensitive data that they would then hold for ransom. But they soon pivoted to a ransomware-as-a-service (“RaaS”) model, providing tools to approximately 100 affiliates in exchange for a commission on successful attacks. Those affiliates were charged with finding high-profile networks with security vulnerabilities; in return, they received perks like assistance with negotiations and access to frontline threat agents who offer technical support. Affiliates take a company’s information hostage—sometimes terabytes of data, which can include private health information, proprietary business files, diplomatic secrets—and the options for recovery are limited: Pay up or suffer the consequences. Over the course of NetWalker’s year-and-a-half criminal enterprise, the group extorted over 5,000 Bitcoins in ransoms, or more than US$40 million. One cybersecurity expert likened the difference between operating as a lone wolf and linking up with NetWalker as the difference between a no-name burger joint and McDonald’s: Who wouldn’t want to go with the brand name and have all the perks of a franchise model?



Vachon-Desjardins appeared to be a productive and harmless member of conventional society, a tidy-looking bureaucrat

Vachon-Desjardins was ready to start his attacks by April 2020. The ransomware provided to him by NetWalker was a type of malicious software, or malware. He had access to a massive database of usernames and passwords—most of which came from open-source information online—that belonged to businesses and institutions and would try them one by one until he made a successful hack. Once he breached a company's digital defences, he would encrypt its data, making it impossible for workers to gain access. Even if his victims could see their files, they couldn't open them. Next, he would scan for sensitive data, like trade secrets, employees' personal information, confidential patient or customer details or financials that a company would prefer to remain private—the stuff that makes an organization vulnerable to blackmail. Once he was done locking things down and surveying the materials he now held, he would send his ransom letter—a template from NetWalker that he'd adapted, injecting wording he felt might have a bigger emotional impact. Then he would ask the organization for a ransom of one per cent of its annual revenue, to be paid in Bitcoin through a public blockchain that records transactions but keeps identities confidential.

> One cybersecurity expert likened the difference between operating as a lone wolf and linking up with NetWalker as the difference between a no-name burger joint and McDonald's: Who wouldn't want to go with the brand name and have all the perks of a franchise model?

One by one, Vachon-Desjardins breached the private computer networks of different Canadian entities, including a software company, a travel insurer, a law firm, a CEGEP and a small, picturesque Quebec town on the bank of the St. Lawrence River. Ville de Montmagny, the self-described "white-goose capital," had all its data encrypted and three servers shut down just as it was about to print tax slips. Vachon-Desjardins even targeted Collège La Cité, his alma mater. His victims appeared to have little in common, but there were a couple of things they shared: At least $30 million in annual revenue, the floor set by NetWalker for attacks, and certain security or software vulnerabilities that would allow Vachon-Desjardins to penetrate their systems.

When he was paid off swiftly and quietly, he held up his end of the bargain. But when a ransom wasn't paid, he was also true to his word: He refused to decrypt the data and distributed the stolen materials on "the NetWalker Blog," a dark-web website that existed for the sole purpose of punishing those who refused to pay ransoms. Depending on the information that was leaked, dark-web users might use it for the purpose of identity theft, further extortion or pure humiliation.

With his flexible moral compass and technological sophistication, Vachon-Desjardins was a natural. And he quickly developed a reputation among other hackers as someone who could attack and secure ransoms with relative ease, assuming a role as head misfit and even teaching dark-web classes about ransomware and malware deployment to aspiring cybercriminals. Some of those who approached him hoped to replicate his actions. Others wanted to learn how to secure their networks to ensure that someone like him could never hack their systems.

There's no question that Vachon-Desjardins was interested in money—and being a ransomware affiliate offered him an extremely quick path to riches. Over the course of his criminal spree, he collected more than 2,000 Bitcoins and paid NetWalker hundreds of them. Flush with digital currency, Vachon-Desjardins managed to exchange almost $1.8 million in Bitcoin for cash. (The RCMP declined to comment on how he converted the Bitcoin.) But the amount he managed to extort was much, much higher. And yet, for someone who was obsessed with amassing money, he continued to live an understated life. He still drove a modest car—a Corolla—and lived in an unspectacular suburban home.

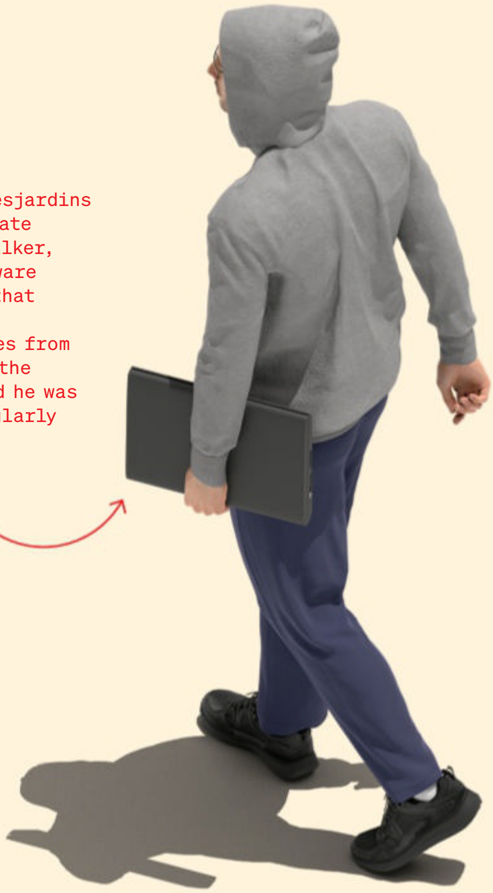
> “Once they see a pattern of people paying, they start to understand it from a business perspective—the market segments, the buyer personas”

Cybercrime is a global problem, but countries have mixed approaches to addressing it and varying levels of success. The United States has taken a top-down approach, including two White House presidential-level summits on ransomware (the most recent in fall 2022). Australia, which recently suffered a catastrophic attack on Medibank, one of the country’s largest private health insurers, has also beefed up its efforts. When Medibank didn’t pay the requested ransom, hackers released patient records related to abortion, addiction, mental-health issues and HIV/AIDS. In response, Australia named a federal minister for cybersecurity and formed a permanent joint task force between the Australian Federal Police and the Signals Directorate, which is part of the national security establishment. “Australia is mad as hell, and they’re not going to take it anymore,” says Shipley. “They’re going to burn the hackers’ tools, wreck their infrastructure and attack the economics of this crime.”

Canada’s National Cyber Security Action Plan was launched in 2019, and it consists of an array of measures, from the upgrading of critical security infrastructure to the fostering of relevant public-private partnerships. There’s a voluntary certification program to help small and medium businesses implement firewalls, training and software upgrades and even buy cyber insurance. But according to a 2021 report from the Canadian Centre for Cyber Security, global ransomware attacks increased by 151 per cent in the first half of 2021 compared to the first half of 2020, with half of the victims belonging to critical infrastructure, including health, energy and manufacturing. Most companies, large and small, invest in some form of virtual security, unaware that vulnerabilities remain. They might have software updates they haven’t pushed or neglected to train staff on even the most basic principles, such as never clicking on a link in an email unless you’re certain the sender is secure.

Hackers might pick targets they’re familiar with or pick them based on some perceived vulnerability. But Shipley says they’re also inclined to select organizations they believe are most likely to pay a ransom without a fuss. “Once they see a pattern of people paying, they start to understand it from a business perspective—the market segments, the buyer personas,” he says. “It’s very similar to any other business sales and marketing approach.” Paying a ransom might be seen as the cheapest and easiest way to make a hacker go away, but it creates all kinds of downstream problems—in particular, it incentivizes future ransomware attacks. Shipley says he was working in IT security at the University of New Brunswick when a Western Canada university paid a $20,000 ransom. Almost overnight, UNB saw an increase in malicious emails with attachments, from 120,000 a month to 1.2 million.

Shipley believes that insurance companies, which offer policies that cover damages from ransomware attacks, have



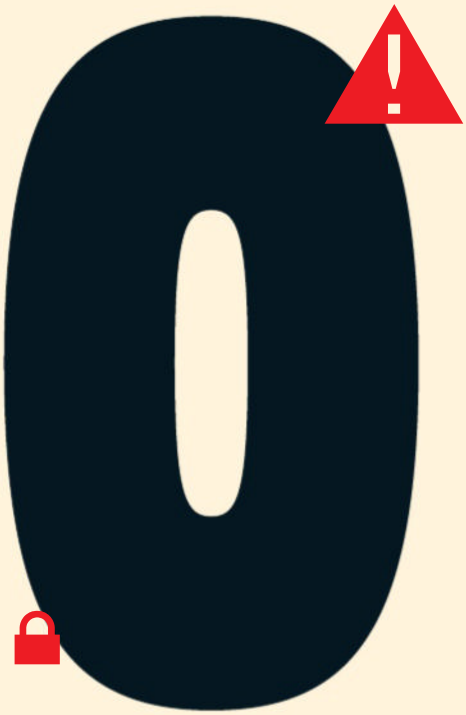
By night, Vachon-Desjardins was a pirate for NetWalker, a ransomware network that included affiliates from all over the world—and he was a particularly good one exacerbated the problem and that the payment of ransoms should be prohibited by provincial regulators. Instead, they should offer insurance products that cover cyber recovery and rebuilding post-attack. “It’s entirely inappropriate to pay the ransom simply because, on a strict basis, that may be the cheapest option for the business,” says Shipley. “It’s that classic tyranny of the commons: What’s good for me as an individual can be bad for society.”

Cypfer, a Toronto-based company with global offices that coordinates responses to ransomware attacks, is often on the receiving end of panicked phone calls from businesses, which sometimes arrive in the middle of the night. Ed Dubrovsky, COO and managing partner, leads a team accustomed to working during the crisis phase. Their job is to first assess exactly what has happened and then negotiate a recovery strategy. Cypfer takes over communications with the attackers on behalf of the hacked business. On occasion, Dubrovsky says he’s been able to push bad actors to return data with an apology—usually through some combination of guilt and threat of legal action. Some hackers simply want to do damage, so it’s a question of figuring out how to minimize it by kicking them out of the system, focusing on recovery and ensuring they can never break in again. But about 40 per cent of the time, money does change hands. The question is how much: How much is the information worth, how much can the company afford to pay and how much will it take to convince the attackers to retreat?

In his seven years of taking on hackers, Dubrovsky says, he’s worked on close to 5,000 cases—and every one was different. But each interaction, typically over an instant-messaging platform or burner phone, has an element of theatre. “Every time we start a negotiation, I take on a persona,” says Dubrovsky. “Obviously, I don’t come out and say ‘Hey, this is Ed speaking to you, and by the way, I live on this street, and let’s go for coffee.’” Instead, behind the anonymity of online interactions, Dubrovsky can play multiple characters—perhaps someone who’s quite aggressive and gets fired up, and then a new, more reasonable negotiator enters the scene. It’s techno good cop, bad cop.

Attackers hide behind anonymity and share the same refrain: This is just business. But there’s a real person behind the computer monitor—and Dubrovsky sometimes tries to tap into their empathy. He listens for cues of a guilty conscience; the hacker might express concern for his victims, for example, noting that he really doesn’t want to damage their business. “If they start a conversation like that, then I will definitely try to start the violin music in the background,” he says. He tries to convince them to go easy, that this is a small business or a hospital that’s just trying to help people get through their day or one of the worst moments of their life. On occasion, the tactic works and Dubrovsky can secure a promise not to publish any stolen data. Multiple times, he’s convinced a hacker to sign an NDA. Jason Kotler, Cypfer’s president, says that they have been successful in convincing hackers not to attack similar victims by making a case for the industry’s social significance during a global pandemic. “They were ancillary health and support services, and the hackers said, ‘You know what, going forward, we get your point,’” says Kotler. “‘This victim will pay, but we’ll change our rules and no longer attack similar organizations.’”

Still, even if the negotiation is successful, a ransom might be paid. Dubrovsky ballparks the average payment at around US$800,000, though he’s seen demands as low as US$50,000 and as high as US$180 million. “Sometimes the numbers don’t make sense,” he says. “The hackers make mistakes. They might think they’re attacking a big company when it’s actually a very small company, or the impact is actually very low. It’s all on the negotiator to bring them the reality of the situation.”



ON MAY 1, 2020, several computers at a business in Tampa, Fla., suddenly flashed a note: “Hi! Your files are encrypted by NetWalker... If for some reason you read this text before the encryption ended, this can be understood by the fact that the computer slows down and your heart rate has increased due to the ability to turn it off, then we recommend that you move away from the computer and accept that you have been compromised.”

The message included a unique code and URL for a site, NetWalker Tor Panel, hosted on the dark web. When an employee at the Tampa business used the code to log on, they were presented

with the ransom amount: US$300,000 in Bitcoin. They decided not to pay. But efforts to respond to the attack—containing damage and restoring operations—ultimately cost the company US$1.2 million.

The FBI was alerted, and in the course of their investigation, they seized copies of a backend server used by NetWalker. On that server, they found detailed information about the group, including both developers and affiliates. Soon, the FBI had narrowed in on their target, a Canadian national. In August 2020, the RCMP was alerted by the FBI that a NetWalker affiliate was operating in Gatineau and that the individual was responsible for ransomware attacks in Canada and the U.S. The FBI disclosed that the attacker had raised more than US$15 million through ransom payments. And they had a name: Sébastien Vachon-Desjardins.

The RCMP investigation was led by Craig Elliott, a middle-aged officer with a narrow face, a shiny bald pate and an earnest demeanour. Elliott's investigation was being run in tandem with the FBI's, which gave him the sense that there was a ticking clock. They were informed that an extradition warrant was coming as early as January 2021, so they would have to act fast if they wanted to interview and prosecute Vachon-Desjardins before the Americans got to him. It was the height of the pandemic, and there was a lot of uncertainty with a newly remote RCMP workforce. And now they had a limited period of time to collect as much information as possible. It quickly became an all-hands-on-deck, is-there-any-coffee-left case as they set to work on investigating Vachon-Desjardins, examining IP addresses, email addresses, aliases, social-media platforms and information supplied by Apple, Google and Microsoft. A key challenge was triangulating the information they discovered as they waded deeper and deeper into Vachon-Desjardins's online life with the very real victims of his attacks—most of whom were not known to authorities.

Alarm bells started ringing for Elliott when he did some preliminary background research and discovered Vachon-Desjardins's day job: He was employed as an IT worker for the federal government. Investigators didn't want to tip off Vachon-Desjardins while they were still sneaking around his crime scenes, so the RCMP shared information with his employer, and he was reassigned to a unit where he would have limited access to sensitive materials while the police worked their case.

At the same time, law-enforcement agents in the U.S. targeted NetWalker infrastructure, identifying and seizing copies of a server that supported their attacks—including those carried out by Vachon-Desjardins—and provided a platform on which to release sensitive hacked data or information. When they examined the server, they discovered details about affiliates and developers—and the vast scale of their unlawful activities.

For someone so tech-savvy, Vachon-Desjardins left a lot of fingerprints. Investigators found evidence of his research into the hacked networks as well as the tools he used to both steal and encrypt company data. Accounts linked to Vachon-Desjardins posted stolen victim data on the NetWalker blog. The ransoms he collected could be tracked on a Tor site (which anonymizes online interactions) accessible to both NetWalker and its affiliates. Crucially, they were able to link a moniker he used in his extortion, User ID 128, to a server in Poland—where he left behind an IP address. And the investigation also confirmed something else: Vachon-Desjardins had indeed been a star pirate. He successfully extorted US$21.5 million from dozens of companies around the world—more than half of the US$40 million extorted by NetWalker affiliates worldwide.

At the end of January 2021, the RCMP executed a search warrant at Vachon-Desjardins's Gatineau home and gained access to his bank accounts, including safe-deposit boxes at National Bank. They confiscated over 30 devices, which contained a total of 20 terabytes of information. If this data were printed, according to court documents, it would fill an entire hockey arena—a distinctly Canadian unit of measurement. Police also found a huge amount of cash in his home—$640,040—and another $420,940 in his bank accounts. Pictures distributed by the RCMP show piles of stacked $20, $50 and $100 bills as well as a six-monitor, two-keyboard desk set-up. In the end, the RCMP seized 719 Bitcoins from Vachon-Desjardins's e-wallet. At the time they were seized, they were worth about $28 million. Almost immediately after Vachon-Desjardins was arrested, he decided to co-operate with Canadian authorities.

> "He is a sophisticated cyberterrorist who preyed in an organized way with others on entities in educational, health-care, governmental and commercial sectors. His crimes are extreme and significant."

In a November 2021 video shared by the RCMP, Vachon-Desjardins sits at a table with his hands clasped in front of him. He is calm and polite, wearing partially frameless glasses and speaking English with a discernible Quebecois accent. He could have been answering questions at a job interview. He seems, if not quite apologetic, eager to share his knowledge. Francois Picard-Blais, another RCMP officer involved in the investigation, describes him as the kind of person you would like to have a beer with. "He's a very intelligent guy," he says. "I think some of it was curiosity to see how well he could do. And he did very well."

In January 2022, shortly after he pleaded guilty to those drug-trafficking charges in Quebec, Vachon-Desjardins pleaded guilty to his complex scheme of mischief: theft of computer data, extortion, the demand of cryptocurrency ransoms and participating in the activities of a criminal organization. During a virtual hearing, he apologized profusely for the harm he had done. But if he hadn't been caught when he was, it appears that Vachon-Desjardins was intent on continuing down his illicit virtual path. Just before the search of his home, Vachon-Desjardins had transferred 224 Bitcoins out of his e-wallet. It was a payment to NetWalker for the latest malicious code for use in future ransomware attacks.

In a written judgment, Justice G. P. Renwick described Vachon-Desjardins in uniquely glowing terms. "The Defendant was pleasant and respectful in court," he wrote. "He is good-looking, presentable and instantly likeable." It never hurts to be considered attractive by one's presiding jurist, but perhaps it was actually the intoxicating air of mystery that the judge was so taken with. Through the proceedings, Vachon-Desjardins remained a cipher. Unlike so many criminal defendants eager to round out their character with glowing references, Vachon-Desjardins provided none. There was nothing that might explain or mitigate his motivation. There were no letters from friends or family explaining that he was otherwise loving and conscientious; no counselling reports zeroing in on early-life trauma or a previously undiagnosed personality disorder. Vachon-Desjardins didn't find religion or explain to the court that he was eager to serve his time and return to gainful employment. He was content to remain a black box—someone who was caught but not known.

A total of 17 Canadian victims suffered more than $3 million in losses. In his written decision, Justice Renwick noted that sentencing parity would be extremely difficult in this case, given that it's the first of its kind in Canada. "The Defendant is not a first-offender," he wrote. "He is a sophisticated cyberterrorist who preyed in an organized way with others on entities in educational, health-care, governmental and commercial sectors. His crimes are extreme and significant." He ultimately sentenced Vachon-Desjardins to seven years in prison and ordered him to pay almost $3 million in restitution.

His conviction in Canada was not the end of his legal troubles. In March 2022, Vachon-Desjardins was extradited to the United States, where he again pleaded guilty in a Florida court and was sentenced to 20 years in prison. It's clear that he operated as a member of a criminal network, but no co-conspirators have been charged, and the RCMP declined to comment on this. In any event, NetWalker disbanded after the FBI seized a server in Bulgaria that it used to coordinate RaaS attacks.

Vachon-Desjardins is presently incarcerated at FCI Fort Dix, a low-security federal institution in New Jersey. (When contacted for comment, Vachon-Desjardins's U.S. attorney said his client does not wish to speak to media.) Shipley says Vachon-Desjardins got caught because he was overconfident and greedy. "If he had been smart and hadn't gotten cocky... Once you make $20 million, you should realize, 'Okay, it's time for me to get out of Canada and just disappear.'"

Vachon-Desjardins has a projected release date of 2039; he'll be in his 50s and promptly returned to Canada. It's anyone's guess what additional skills he will pick up in prison and whether his time behind bars will inspire him to go straight or—as was the case when he served time for drug trafficking—embolden him further. Pleasant-looking, co-operative and deviously smart, he'll have had plenty of time to ruminate on his own actions and exactly what he was trying to prove—and if there could ever be enough money to make him walk away from his keyboard.

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If entrepreneurs have learned one lesson in the past year, it's that business as usual doesn't cut it in a world destabilized by a pandemic, a global refugee emergency, a climate crisis and the war in Ukraine. Survival requires new ideas. New ideas to fix broken supply chains. New ideas to prevent—and ideally reverse—environmental damage. New ideas to make businesses smarter, more sustainable and better at anticipating customer needs. New ideas that create a better world.

These 25 companies are taking risks that pay off for customers, employees and shareholders—and set new standards for ethical business practices. Here’s how they did it.

ILLUSTRATIONS BY
KATHLEEN FU

ATION
RDS

Canadian Business, supported by the research team at the Brookfield Institute for Innovation + Entrepreneurship, is celebrating companies that excel at innovation. We analyzed data on businesses with Canadian headquarters that are leaders in their field and—most importantly—prioritize practices that are sustainable, equitable and inclusive. From that list, our panel of judges selected 25 standouts. They represent the best and brightest in their respective industries. Meet Canada’s best innovators.

$29.18
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1D 1W 1M 3M 1Y 5Y
BUY
SELL

BEST PERSONAL FINANCE INNOVATOR

[Wealthsimple]

It was ahead of its time back in 2014 when it launched Canada's first "robo-adviser"—a nifty managed platform that would ultimately transform the direct-to-consumer investing space. Wealthsimple democratized investing by making it low-cost and DIY, and its early list of firsts is impressive: first commission-free trading platform, first platform to offer regulated crypto, first to provide users more affordable fractional shares. Now, as the company surpasses 3 million clients and with $20 billion in assets under its administration, it's still breaking new ground. This past March, Wealthsimple clients gained access to private credit, whereby retail investors can contribute to big business loans. And the company is currently in beta testing to offer options trading to its users. And then there's this: Wealthsimple is so far the only financial organization that's not a bank or credit union to be granted access by the Bank of Canada to Canada's forthcoming national real-time-rail payment system. Just the latest thing to add to that list of first-rate firsts.

Founded: 2014
Founders: Rudy Adler, Brett Huneycutt, Michael Katchen
Headquarters: Toronto

NON-ALCOHOLIC WINE ALTERNATIVE
Tart & Juicy Red
PROXIES
PRO

PHOTOGRAPH COURTESY OF PROXIES

BEST FOOD AND BEVERAGE INNOVATOR

[Proxies]

NON-ALCOHOLIC WINE ALTERNATIVE
Rich & Spicy Red
PROXIES
Red Ember
Big, bold, and full of character. A perfect partner for steak night or date night.
Non-Alcoholic Wine Alternative
25 fl oz (750 mL)

While non-alcoholic spirits and beers have grown exponentially in popularity over the past few years, booze-free wine alternatives have lagged behind. That's because most of them are made by de-alcoholizing wine (usually mediocre bulk wine), resulting in an end product that tastes about as complex as grape juice.

Charlie Friedmann, president of non-alcoholic-wine brand Proxies, developed a product that stands up against its alcoholic counterparts. He uses varietal wine grapes from European vineyards, adds verjuice from Ontario's Niagara region for acidity and body and then layers in teas for structure, tannin and aromatics, other fruit juices for depth and additional flavour and herbs and spices for aroma and complexity.

Founded: 2021
Founders: Devin Campbell, Charlie and Scott Friedmann
Headquarters: Toronto

The goal was to create a non-alcoholic wine alternative that pairs well with food. The list of acclaimed institutions that have Proxies on their beverage menus is a testament to that—the Four Seasons, the Fairmont and the Ritz-Carlton hotel groups are among them. The company is also in talks with provincial liquor boards and major U.S. grocery chains for launches before the end of the year.

Proxies' core products are free of preservatives—a rare exception among non-alcoholic wines. And for 2023, it's developing more sparkling wines that'll match the complexity of its core line. Another new product coming this year is canned Proxies (for the park picnickers, weekend cottagers and music-festival goers) as well as more limited-edition collaborations, like the sparkling rosé the company developed with chefs from Parachute, a Michelin-starred restaurant in Chicago, to pair with its Korean fare. Proxies is also collaborating with a winery in Oregon on a new product—a sign that the wine world, which has long frowned upon non-alcoholic products, is warming up to the idea of booze-free bottles.

BEST FINANCIAL SECURITY INNOVATOR

[MinervaAI]

As any nightclub bouncer will tell you, it's easier to keep trouble out than it is to remove the source once it's inside. The stakes are just a bit higher when it comes to financial organizations attempting to keep money launderers off their client lists.

Five years ago, Jennifer Arnold, who has a long history in financial-crime roles at major Canadian banks, teamed up with an artificial-intelligence expert and a data whiz to create MinervaAI. Overnight, their company provided a new kind of anti-laundering process for financial institutions—namely, banks, crypto exchanges and payment platforms—by applying machine learning and deep learning to the task.

Before Minerva, anti-money-laundering efforts relied solely on a series of manual searches that can take hours of an analyst's time. Minerva, on the other hand, examines around 4.5 billion data points in seconds.

In a blink, Minerva ensures there are no sanctions against a potential client, scans for anything fishy in the media—everything from national newspapers to blogs to bulletin boards—in 147 languages and identifies whether they are a politically exposed person who could be vulnerable to bribes and corruption. Once a client is given the green light, the platform will continue to keep tabs on them in real time.

Founded: 2018
Founders: Jennifer Arnold, Victor Tay, Damian Tran
Headquarters: Toronto

The company makes compliance with federal regulations less costly, but it also does something even more important from a reputational perspective: It more efficiently ensures financial organizations aren't doing business with human traffickers, drug lords or arms dealers.

The next development coming from Minerva will assist the potential client. Details are scant ahead of its launch this summer, but word is that the new tool will allow a person approaching a financial institution to present verified information—think club goer showing his ID—and then, if they want to move on later, put it back in their pocket.

BEST POINT-OF-SALE INNOVATOR

[Financeit]

Making a big investment in your home, like a new deck or a hot tub, can invite plenty of stress about costs. One solution: Financeit, a Toronto fintech company, gives buyers the flexibility to choose a low-cost payment plan. Founded in 2011, Financeit provides a point-of-sale financing platform to home-improvement companies like California Closets, Home Depot and Lennox Furnace. After customers pass the usual credit checks, the platform helps the company offer an efficient and affordable payment plan—with none of the hidden fees typical of most financing set-ups. Since launching, the company has expanded from home-improvement services into vehicle and other retail offerings.

Founded: 2011
Founders: Michael Garrity, Casper Wong
Headquarters: Toronto

BEST SOFTWARE SUPPORT INNOVATOR

[AOT Technologies]

You have a great idea for a new business, but it's going to require a lot of technology, which means hiring web developers and building complex applications. And in a competitive job market, it can be challenging to find the right talent. But you could just work with AOT Technologies instead. The Victoria-based start-up specializes in open-source low-code development, which can be built with 80 per cent less programming time, freeing up staff to work on high-priority projects. Making changes to a finished system can be as easy as using drag-and-drop tools. This means organizations—including several ministries in the B.C. government, which use an AOT software to streamline workflows—don't have to invest as much in recruitment or worry about finding a wizard of a developer. This year, AOT is adding new functionalities that make it easier to automate businesses end-to-end—putting the power of coding into clients' hands.

Founded: 2010
Founders: George Philip, Praveen Ramachandran
Headquarters: Victoria

BEST VIRTUAL HEALTH CARE INNOVATOR

[Maple]

Maple's virtual-health-care platform found its big moment during Covid, becoming something of a household name, but when it launched in 2015, the idea of accessing a doctor via your computer was revolutionary. More than just an MD on Zoom, the platform will triage your complaint and allow a doctor to order lab tests and generate prescriptions for you. (Patients without provincial or group coverage pay a monthly fee.) Unlike its main competitors, which hire doctors on shifts, Maple functions more like Uber; when one of its 3,000 medical professionals has a day off from their regular job, they can hop onto the system to take on extra work. Later this year, Maple will launch a new product that might take away from its first one: a platform designed to keep its four million clients healthy. Like a Fitbit times 10, the platform will take into account your age, sex and medical history and give health and nutrition guidance to keep you on your most optimal track to avoid high-risk conditions.

Founded: 2015
Founders:
Brett Belchetz,
Stuart Starr,
Roxana Zaman
Headquarters:
Toronto

BEST SELF-CARE INNOVATOR

[Nixit]

Any time is a good time to talk about that time of the month: So goes the guiding philosophy of the period-care company that is "nixing" the shame around menstrual health while also changing the way women manage their flows. Nixit's signature BPA-free silicone disc sits below the cervix, is easy to clean and has a five-year lifespan. The company estimates that 42 million period products have been diverted from landfills since it launched in 2018. A 100 per cent organic water-based lube is Nixit's latest offering, sold as a companion to the disc or as a standalone product. Like all things Nixit, the design and branding are Gen-Z-friendly, clean and functional but also chic enough to be displayed on your nightstand—or even your Instagram feed.

Founded: 2018
Founder: Rachel Newton
Headquarters: Toronto

The company estimates that it has helped divert 42 million period products from landfills in the past five years

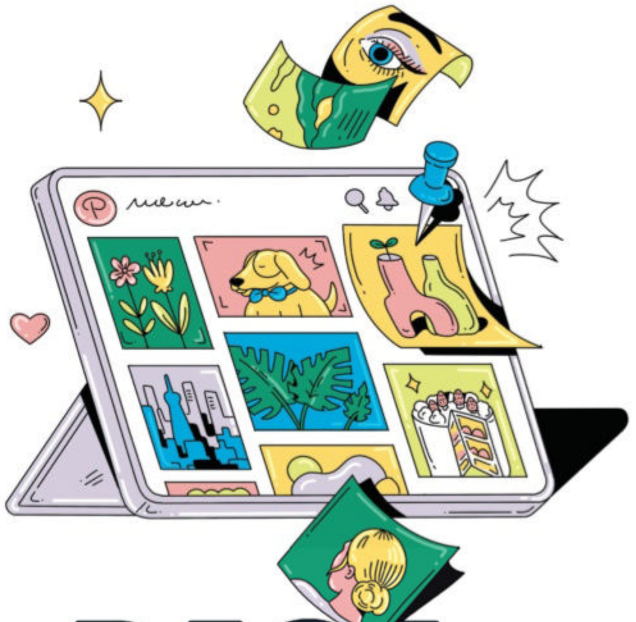
PHOTOGRAPH COURTESY OF NIXIT

BEST MARKETING INNOVATOR

[Vendasta]

For small- and medium-sized businesses, the nagging question is always: What would we be able to achieve if we just had resources like the big players? Vendasta, a tech consultancy headquartered in Saskatoon, delivers just that to some 5.5 million local businesses around the world. For Anderson Marketing Group, Vendasta overhauled the company's online advertising and e-commerce options, leading to 250 per cent annual growth since 2020. This year, it seems like every company wants to keep up with the wave of AI developments. Vendasta is helping its clients implement AI tools that help write social marketing campaigns in a snap, generate social-media images and even respond to customer reviews on Facebook and Google. The result is higher efficiency, more resources being made available for other projects and being better able to compete in a marketplace dominated by the big guys.

Founded: 2008
Founders: Jason Collins, John Fothergill, Ches Hagen, Guy Kelsey, Brendan King, Jeff Tomlin, Allan Wolinski
Headquarters: Saskatoon



BEST SOCIAL MEDIA INNOVATOR

[Pinterest]

It may be a California-based company, but Pinterest has a new 430-square-metre office in Toronto's financial district that's pure Canadiana: The meeting rooms are designed around plaid, maple syrup and, yes, poutine. Scaling its Canadian presence—including national launches of Pinterest TV and Pinterest Academy (an e-learning module to help brands connect with advertisers) as well as 50 new local hires—has been a top priority for the social-media platform. Half of Pinterest's global shopping-engineering team is now located in Canada, and they're tasked with building the tech that will drive the company's growth over the next 10 years.

Founded: 2010
Founders:
Paul Sciarra,
Evan Sharp,
Ben Silbermann
Canadian headquarters:
Toronto

BEST INVESTMENT INNOVATOR

[Sandpiper Ventures]

When Julia Rivard Dexter was seeking funding for a gamefied learning software, she kept running into the same kind of resistance: Potential investors loved her product, but they felt the company would benefit from a "different" (read: male) kind of leader. Raising capital was slow, and the cheques she was getting were slight. A saviour came in the form of Sandpiper Ventures, which provided the money she needed as well as the momentum: Sandpiper's vote of confidence inspired investments from BBC and the Telus Pollinator. Rivard Dexter ultimately exceeded her $3 million funding target.

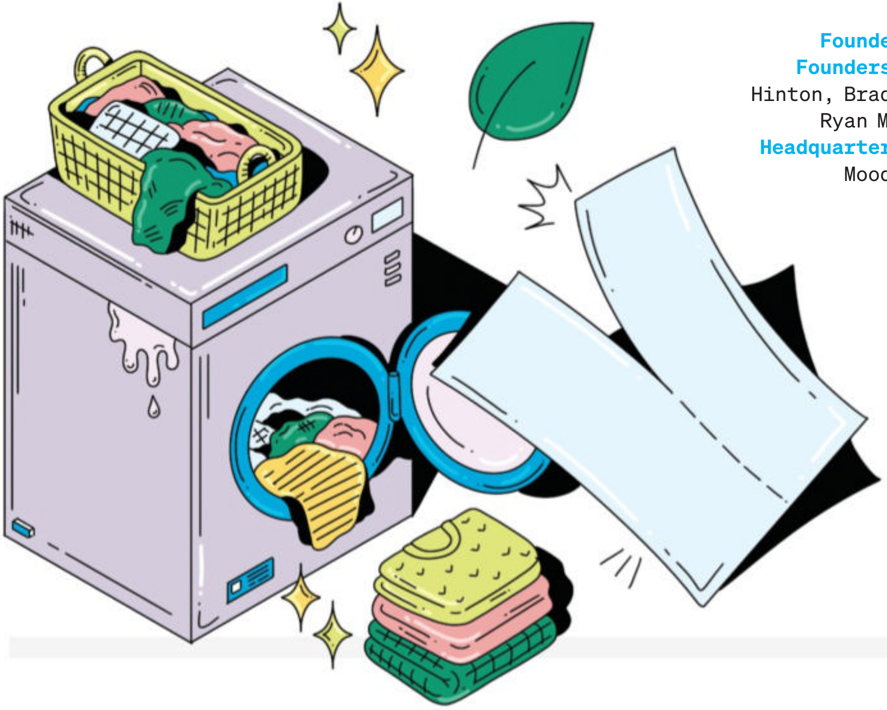
Founded: 2020
Founders:
Cathy Bennett,
Rhiannon Davies,
Sarah Young
Headquarters:
Halifax

The challenge of fundraising while female is something the nine co-founders of the Halifax-based VC firm—which is devoted to investing in seed-stage start-ups founded and led by women—experienced first-hand while hunting for the $20 million they needed to launch their fund. This is, sadly, part of a broader pattern. While statistics show that businesses with women founders deliver higher revenue, only 2.3 per cent of venture capital goes in their direction. Systemic barriers start with the basic reality that people are more likely to trust individuals who are most like themselves, creating a self-perpetuating old (white) boys club. When women do get the chance to pitch their projects to potential investors, they are often asked about how they will mitigate loss, whereas male founders are asked how they will stimulate growth. The pitch process itself—a high-octane grill sesh—suits bro-ish personality traits, which is why Sandpiper has opted for a deeper approach, focused less on bravado and more on mutually beneficial partnerships. Atypically, they devote half the time in an initial meeting to letting founders ask them questions. When things move forward, it is with the understanding that not just money but the accumulated expertise and networks of the co-founders will be part of the package.

Three years in, Sandpiper's growing portfolio includes businesses that specialize in AI, edtech, health care, flower delivery and more. The current tech-sector downturn means competition for capital is fiercer than ever, but Sandpiper co-founder and managing partner Sarah Young sees a silver lining: Women entrepreneurs have rarely reaped the benefits of a soaring market or overvaluation. They are used to making more from less.

BEST GREEN CONSUMER PRODUCT INNOVATOR

[Tru Earth]



Founded: 2019
Founders: Kevin Hinton, Brad Liski, Ryan McKenzie
Headquarters: Port Moody, B.C.

A **British Columbia trio of** dads—Kevin Hinton, Brad Liski and Ryan McKenzie—launched Tru Earth as a laundry-detergent company. Their hero product—a two-inch-by-four-inch phosphate-free detergent strip packaged in biodegradable cardboard, designed to replace liquid detergent in a plastic container—has since led to a line of environmentally friendly household products, such as toilet-bowl cleaner, dishwasher-detergent tablets, dish sponges, fabric-softener strips and beeswax wraps.

The company recently expanded into major U.S. grocery and hardware chains, such as Publix and Kroger. As of October 2022, Tru Earth could be found in more than 7,000 retail locations, and the founders say the popularity of their products has prevented more than 107 million plastic containers from being created. If they have their way, green cleaning will be the default in every household.

BEST GREEN ENERGY INNOVATOR

[Solaires]

Founded: 2020
Founders: Fabian de la Fuente, Sahar Sam
Headquarters: Victoria

Despite a pandemic-related supply-chain hiccup, solar power continues to be the best news story in renewable energy, with prices still plummeting and adoption on the ascent. Solaires, a Victoria-based cleantech firm, is making solar even more readily accessible and useful through unique perovskite-based solar "ink" and solar cells. A perovskite crystal has great compositional flexibility and, unlike conventional silicon, can be used in solar cells at a fraction of the production cost and energy; it can also be tuned to precisely match the sun's spectrum. Solaires's patented Solar Ink can be applied to rigid or flexible substrates, like thin film solar cells, but also to Internet of Things wearables and sensors, and it can be used outdoors or indoors. The company's aim, in fact, is to capture the sun's energy literally everywhere; in a decade's time, it expects, its products will allow every single battery to be charged directly through solar. Solaires is just moving into the international market now—it recently signed distribution agreements in Korea and Japan—but its future looks very bright indeed.

BEST PACKAGING INNOVATOR

[Eco Guardian]

This southern Ontario company has been creating green product solutions, like compostable cutlery, cups and food-takeout containers, since long before governments began mandating them. It makes them with rapid-growth crops, like wheat straw, sugar cane and bamboo, partnering with facilities to use post-industrial materials, which reduces waste and promotes a circular economy. When the pandemic hit, the company expanded with a line of toilet paper, napkins, facial tissues and paper towels made out of bamboo instead of trees. Bamboo, a grass, produces 10 times the paper yield of trees and regenerates easily without replanting.

In the summer of 2022, the company won Sobeys' Plastic Waste Challenge with a bamboo- and sugar-cane-based design that consists of two trays—one with holes and one solid—with a pad in between. It serves as a green alternative to the Styrofoam and plastic trays commonly seen in grocery stores today. The new packaging will be piloted in Sobeys locations in Nova Scotia, with the goal of being rolled out nationally.

Founded: 2004
Founder: Anil Abrol
Headquarters: Newmarket, Ont.

BEST REAL ESTATE INNOVATOR

[Wahi]

The real estate sector got a shock when this start-up launched an alternative-home-sales platform that gives homeowners more options and more control when selling their properties. The control comes in the form of paying only a one per cent commission (for a home auction) or a 1.5 per cent commission (to sell with listing, showings and negotiation help from Wahi staff) instead of the usual 2.5 per cent. This translates to a savings of about $10,000 to $15,000 per home, based on the current average Toronto prices.

Home sellers who wish to go the traditional realtor route can also use Wahi's search function—created in partnership with the Vector Institute for Artificial Intelligence—to compare the services and fees of realtors to choose the best one for their needs. While Wahi is currently only operating in the Greater Toronto Area, the company plans to add more markets in Ontario—and ultimately anywhere people want to take control when selling a home.

Founded: 2022
Founder: Benjy Katchen
Headquarters: Toronto

PHOTOGRAPH COURTESY OF MECADEMIC

BEST ROBOTICS INNOVATOR

[Mecademic]

Jonathan Coulombe and Ilian Bonev founded Mecademic with a lofty goal: Make robots smaller and more affordable. An industrial robot arm, used to automate manufacturing processes, can cost up to $400,000 and, depending on the application, be larger than most human beings. But the Meca500, one of Mecademic's flagship products, is about a foot tall and can be held in one hand. The petite robot arm is used to do finicky jobs with more precision than a human, including assembly, inspection and testing in medical-device manufacturing, lab automation and the making of jewellery and watches. It's also a fraction of the price of its competition, at around $23,000. Demand is building: In late 2022, Mecademic released the latest version of Meca500, which has since sold almost 20,000 units in 40 countries. This year, it will be releasing a new model of its other robot, MCS500, and developing more new products.

Founded: 2013
Founders: Ilian Bonev, Jonathan Coulombe
Headquarters: Montreal

BEST COMMERCIAL VEHICLE INNOVATOR

[Geotab]

During the Covid-19 pandemic, we all became keenly aware of how important supply chains are—and how easily they can be disrupted. Geotab is making that entire process smarter. The company tracks commercial fleets using sensors that provide data on everything from location to vehicle performance and safety. To date, Geotab has connected to 3.5 million vehicles worldwide and processed more than 55 billion data points daily. Companies use that data to plan more efficient routes and make better choices about what kinds of vehicles to use. As a result, Geotab makes a big environmental impact. If cars and trucks run more efficiently, they use less fuel—so the analysis the company provides is invaluable for making commercial fleets green. And a newly announced partnership with Synop, a platform for electric-vehicle operations, will also give clients access to integrated EV charging and energy management. As many truck fleets convert to EVs, this will help them track battery-charge times and the energy efficiency of each vehicle, which in turn helps them make better planning decisions.

Founded: 2000
Founder: Neil Cawse
Headquarters: Oakville, Ont.

BEST SOCIAL WORK INNOVATOR

[CarePros]

While ongoing pandemic fallout and a youth-mental-health epidemic have left many Canadians reeling, CarePros remains a bright light in the gloom. Since 2016, the Albertan youth- and child-care organization has provided a battery of badly needed services, including personalized respite care (at home and otherwise), community support and behavioural-development support. It tailors programs with culturally informed practices for Indigenous children and helps youth looking for employment. Ultimately, the goal is to create better, stronger and safer communities, especially for children who've experienced significant trauma. Most recently, CarePros launched a new model of foster care that treats behaviours as symptoms rather than problems and is implementing new therapies to better understand how trauma has affected the brains of the children and youth it cares for. Next up: custom case-management software that CarePros believes will set a new industry standard.

Founded: 2016
Founder: Charles Wong
Headquarters: Edmonton

BEST TALENT RESOURCES INNOVATOR

[Staffy]

When entrepreneur Peter Faist launched his start-up, it helped restaurants and bars get last-minute servers and cooks. But the moment the pandemic hit hospitals, long-term-care homes and medical clinics, leading to burnt-out and sick staff, the company became an invaluable resource for matching up those institutions with qualified nurses, personal-support workers, dietary aides, cleaners and other staff. Today, there are approximately 20,000 workers available on Staffy, helping fill staffing shortages at major hospitals and medical clinics in six provinces. On average, these workers fill 21 shifts a year. Because many health-care institutions still face a backlog in operations staff, the company is adding X-ray and CT-scan technicians, among other roles, and has its sights set on a U.S. expansion by 2024.

Founded: 2015
Founder: Peter Faist
Headquarters: Toronto

40%
72
72
ecobee

BEST HOME TECH INNOVATOR

[Ecobee]

PHOTOGRAPH COURTESY OF ECOBEE

Founded: 2007
Founder: Stuart Lombard
Canadian headquarters: Toronto

Last September, San Diego experienced a prolonged heatwave. Residents who had an Ecobee smart thermostat in their home would occasionally get a message: Would they consent to their power consumption being reduced for a time in order to avoid a regional blackout? Fifty-thousand Ecobee customers voluntarily participated in the program, saving about 50 megawatts at peak times and helping San Diego keep the lights on.

Ecobee invented the first wifi-connected thermostat in 2009, and its innovative thermostats have since evolved to track household energy use to help consumers save money and use less power. Its devices also serve as a smart speaker, an air-quality monitor and even a security system if integrated with the appropriate software. And having been acquired in 2021 by Generac, an energy-technology company, Ecobee is now offering integrations with Generac's line of wifi- and cellular-enabled home standby generators, which will help homeowners track the use of backup power too—which is especially handy when power outages like the one faced by San Diego can't be avoided.

BEST FASHION INNOVATOR

[Folds Wear]

Nina Kharey, the engineer and designer behind online retailer Nonie, built a reputation for practical and luxurious womenswear that's a favourite of the likes of Meghan Markle. But during the pandemic, Kharey did an about-face, retrofitting her Calgary factory to produce masks for health-care workers. She also saw an opportunity to improve on standard-issue scrubs, which tend to be ill-fitting and poorly made. Worse, because most scrubs are made with easily contaminated fabric that contains plastics, some 16,000 tonnes end up in North American landfills every year. Kharey's solution: Folds Wear, a line of tailored scrubs that come in sportier looks with jogger-style pants and crewneck shirts. The scrubs are made from recycled materials that are more durable and withstand multiple washes. Folds Wear fabric also contains silver ions, a topical antimicrobial agent that kills viruses on contact—keeping wearers safe while looking stylish. Kharey's efforts were justified by the enthusiastic response from health-care workers. Now she's expanding with a line of lab coats and a lighter fabric for professional blouses. Her flagship brand also now uses silver-ion technology and green fabrication. For Kharey, sustainability is the future of fashion and function.

Founded: 2021
Founder:
Nina Kharey
Headquarters:
Calgary

Kharey saw an opportunity to improve on ill-fitting and poorly made scrubs—and make them durable, safe and stylish

PHOTOGRAPH COURTESY OF FOLDS WEAR

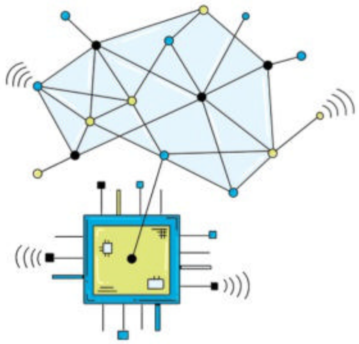
BEST PERSONALIZED LOAN INNOVATOR:

[Borrowell]

This Toronto fintech lender also aspires to be a full credit-education shop—with a mandate to help make financial prosperity possible for more Canadians. A tall order, to be sure, but Borrowell is tackling the problem from many angles. Through a partnership with Equifax, it allows individual clients—the company now has 2.5 million—to access their credit score and report for free while also helping them find the best financial products (credit cards, loans, savings accounts) based on that credit history. Other products enable consumers to demonstrate creditworthiness, such as Rent Advantage, which was launched by the company in 2022 and allows renters to use consistent payments to build credit.

Founded: 2014
Founders: Andrew Graham, Eva Wong
Headquarters: Toronto

Getting back to its roots, the company has launched a loan program for customers with high credit scores; it gives them instant pre-approval in the Borrowell app. While the products are of obvious appeal to younger people just getting their first apartments and Visa bills, Borrowell's customers are more often than not newcomers to the country who need to establish Canadian credit history essentially from scratch. With about 100,000 people logging in every day, Borrowell can't offer clients advice from real, live advisers, but tips and recommendations are generated by AI based on a client's credit and financial needs. While the company's mandate has a whiff of altruism, Borrowell is also, of course, in it for the money: It makes a referral fee every time a client applies for a credit card or loan from one of its partner financial institutions (they pay the fee, not the client), and tools like Credit Builder operate on a subscription basis, starting at $10 a month.



BEST 360 TECH INNOVATOR

[Incepta]

The number of software tools available to businesses today can be dizzying. How to choose the ones that will help run a business efficiently, build prospects, please clients and cut costs? Incepta take some of the guesswork out of the equation. This Mississauga company helps businesses transform digital operations by offering a full complement of software options. Its systems for construction-project and large-building management optimize operations and energy use at worksites and in built structures. Other services, like Incepta HRX, automate and streamline every step of HR recruitment and onboarding. This year, the company also launched two new products for financial services: Incepta APx, which streamlines revenue operations, and Open Finance Readiness Assessment, an advisory service for Canadian financial institutions. It's just one more way Incepta is making it easier for companies to focus on work instead of struggling with the latest addition to the software stack.

Founded: 2010
Founder: Ishtiaq Ahmed
Headquarters: Mississauga, Ont.

BEST CREATIVE CULTURE INNOVATOR

[Wattpad]

When Wattpad launched during the early days of social media, it had a goal of disrupting the traditional world of book publishing: User-generated content did away with the gatekeepers and meant that anyone with an internet connection could share their story. Now the Canada-based company (it was acquired in 2019 for an estimated $600 million by Korean tech firm Naver) is making similar waves in the entertainment world, turning its most popular content (often fan fiction with massive built-in audiences) into film and TV adaptations via Wattpad Webtoon Studios. Last summer's *Through My Window*, one of Netflix's most popular international titles, was based on a steamy Spanish romance that got 400 million views on Wattpad before being published as a paperback. A sequel coming this June is just one of the 120-plus projects currently in the pipeline.

Founded: 2006
Founders: Allen Lau, Ivan Yuen
Canadian headquarters: Toronto

BEST CONSTRUCTION INNOVATOR

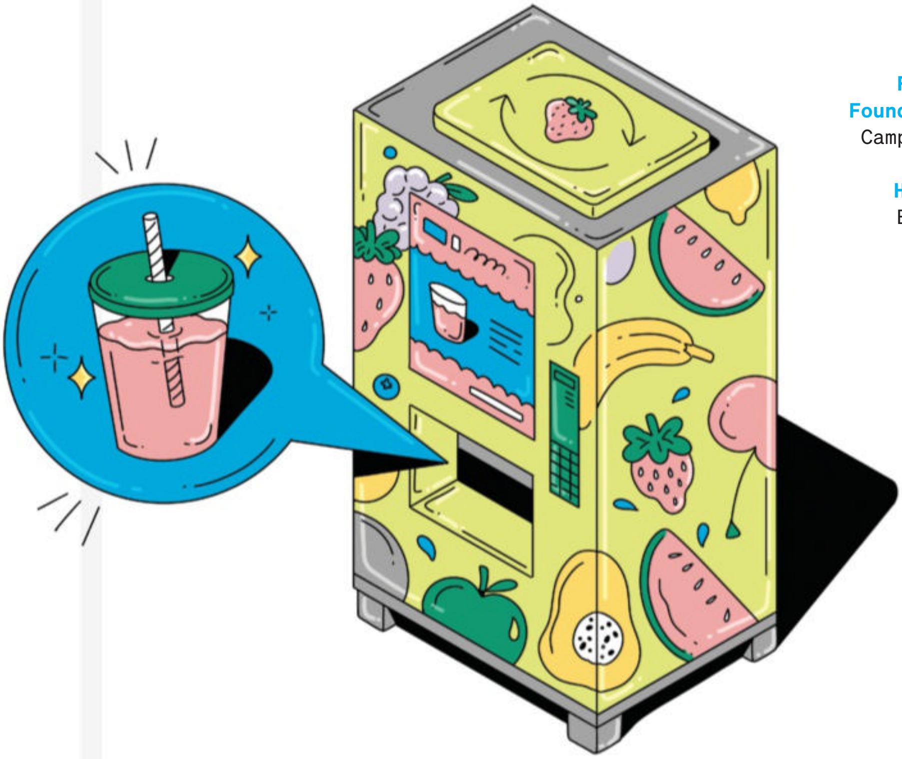
[Carbon Upcycling]

We've all upcycled—turning an old T-shirt into a wash rag, for instance—but Carbon Upcycling takes that principle to a whole other, planet-saving level. Its technology is as elegant as it is effective: The company captures industrial by-products—up to 42 different ones, from coal- and glass-manufacturing plants and more—and combines them in a reactor with similarly captured on-site carbon-dioxide emissions. The chemical reaction produces a material additive that can be used in concrete, cement and industrial plastics. The process is a double whammy of sustainability—a portion of CO_2 is prevented from escaping into the atmosphere while the new material is made stronger and more durable. Since 2014, Carbon Upcycling has scaled up by more than four million times, and already this year, it has signed deals for two new cementitious-material-production and carbon-capture facilities in the Alberta construction sector as well as another facility in Mississauga, Ont. Meanwhile, the company's consumer-facing brand, Oco, has been injecting CO_2 into everything from yoga mats to crayons. The possibilities will soon be virtually endless—this past April, Carbon Upcycling launched a new line of carbon-captured 3-D printing filaments.

Founded: 2014
Founder: Apoorv Sinha
Headquarters: Calgary

BEST FOOD WASTE INNOVATOR

[Trendi]



The name may conjure thoughts of fast-fashion fads or culinary flavours of the month, but Trendi is, in fact, all about long-term sustainability in the food industry. Carissa Campeotto and Craig McIntosh, a marketer/cold-pressed juice pioneer and professional chef, respectively, were looking for ways to dramatically reduce the amount of food waste generated in Canada. It's a colossal problem: 58 per cent of food produced is lost or wasted, costing the Canadian economy more than $49 billion every year, while more than 800 million people worldwide suffer from food insecurity. Their solution was to go directly to the source. The company's trucks—kitted out with custom-designed robotic machinery—collect, clean, process and package damaged or leftover produce, transforming that misfit food into shelf-stable, freeze-dried powdered ingredients for use in packaged foods, pharmaceuticals, animal feed, cosmetics and more. Currently, Trendi has one of its so-called BioTrim units at a B.C. farm and another on its way in Ecuador. These ingredients are also used in Trendi's Smoothie Machines, candy-coloured vending machines that dispense four different flavours of smoothie 24-7. Five such machines are scattered throughout the Vancouver International Airport, and another 10 are scheduled to appear in other locations in the province later this year. The company also collaborates with post-secondary institutions; it joined forces with Niagara College's Canadian Food & Wine Institute on its Food Waste Challenge, inviting students to create dishes using Trendi's freeze-dried ingredients. This past March, the Alberta arm of start-up incubator Plug and Play selected Trendi as its first food-and-beverage cohort, a move that will accelerate the company's development and connect it to big industry players. Trends may come and go, but "waste not, want not" will forever be words to live by.

Founded: 2019
Founders: Carissa Campeotto, Craig McIntosh
Headquarters: Burnaby, B.C.

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“Employees should feel a sense of purpose coming to the office”
—CHRIS FORD, PAGE 70

STRATEGIES

NEWS
100
100

Practical advice on how to tackle today’s biggest business challenges from leaders on the ground

by Liza Agrba, Mathew Silver and Andrea Yu / illustrations by Andy Rementer

How to Give Staff Unlimited Paid Time Off

Traffic-solutions company Miovision says open vacation time makes employees more productive

PHOTOGRAPH BY COLIN BOYD SHAFER

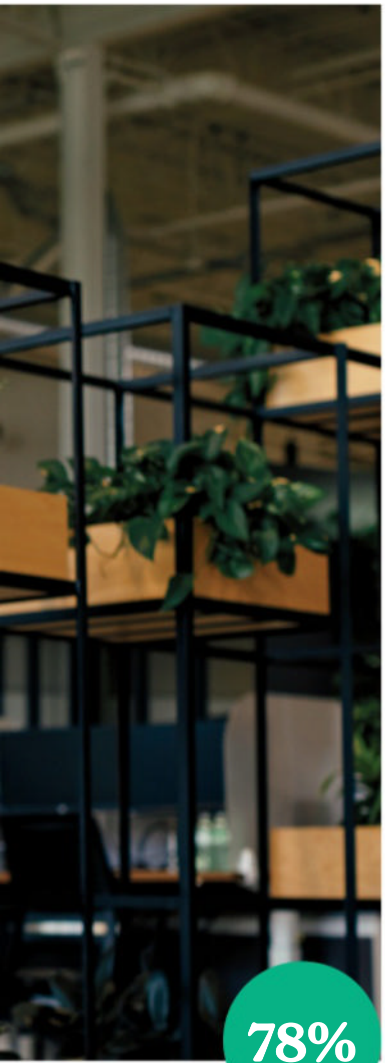
During the pandemic, Miovision introduced paid “Mio-days,” an extra day off work on top of every three-day long weekend. This means that the company, which is based in Kitchener, Ont., and creates tech that helps cities track and analyze traffic data, gives staff up to 10 additional days off per year. And that’s on top of Miovision’s progressive vacation policy: In 2016, it instituted unlimited paid time off for staff, which Jill Jutzi, VP of people and culture, says is a reflection of the company’s core value of empowering team members. “It not only helps keep our workforce happy and motivated but also gives us an edge in attracting and retaining talent,” she says.

Employees must take at least three weeks off each year, but there’s no maximum amount. That may sound like a recipe for chaos, but Jutzi says it has yet to hamper productivity. Average vacation time hovers around three to four weeks, and if anything, the policy has been a win-win for the company and its workforce. “We need strong performers who feel energized at work,” Jutzi says. “If you’re not taking time to recharge your batteries, you’re not going to perform well at your job. We trust our employees, so we give them the latitude to decide how much time off they need.”

Logistically, the policy is simple. Most requests for time off go through an automated system; Miovision uses the payroll software ADP. Requests for longer than a month must be approved by a manager. Behind the policy’s success are two pillars: hiring the right people and measuring performance by impact, not hours at work.

Jutzi says hiring managers focus on finding team players who align with Miovision’s values: Complacency is not an option; put the customer first; have a passion for success; and value individuals. In the recruitment process, they ask open-ended questions, like “Tell me about a time when you overcame a series of roadblocks in a project,” to assess a candidate’s alignment with these values.

“We’re looking for answers that talk about the importance of mutual respect as well as clear communication and—when things don’t go as planned—solutions-focused conversations,” Jutzi says.



Jill Jutzi,
VP of people
and culture
at Miovision
↵

But how do you measure performance without centring time spent at work? The key is a proactive system for managing goals. Miovision distills broader, company-wide targets into concrete quarterly deliverables, which then get broken down into objectives for specific teams and team members. At the beginning of each quarter, employees work with their managers to establish a list of goals, and they have regular discussions to track progress—generally with a biweekly one-on-one. “The aim is for both employee and manager to be clear on deliverables—there shouldn’t be any surprises regarding performance,” Jutzi says.

The company has never had to discipline an employee for taking too much time off. If that did happen, Jutzi says it would be triggered not by how much time a person has been away but by them not fulfilling their responsibilities. “At Miovision, it really is about the work, not the time off,” she says. “That attitude definitely gives us an edge in recruitment. The tech market is competitive, and you want to be able to offer policies that allow people to have a life alongside their job.”

For businesses looking to give employees unlimited paid time off, Jutzi says it’s crucial to think about it as an extension of the broader company culture. Introducing a liberal vacation policy is a clear way to demonstrate trust for one’s employees—and a way for leaders to walk the proverbial talk when it comes to empowering their workforce.

78%

of bosses agree
that vacation
improves
employees’ focus
at work

HOW TO LAUNCH A BUSINESS NEWSLETTER

The editor of Wealthsimple’s magazine wanted to offer useful news to engage existing and future clients

In the fall of 2021, Devin Friedman, editor-in-chief of Wealthsimple’s magazine, met with the fintech company’s co-founder Rudy Adler to talk about starting a newsletter.

Friedman wanted to create educational, newsworthy and entertaining content for both readers who are knowledgeable about finance and those with less experience. “The better people understand what they should be doing with their money, the better the company’s going to do,” Friedman says. “We saw the newsletter as a way to keep in communication with our clients and hopefully reach a new group too.”

The newsletter would curate content from around the web for subscribers and package stories about the financial news of the week so readers wouldn’t have to hunt around online.

Developing the newsletter happened quickly. One of Wealthsimple’s mottoes is “ship it, then improve it,” which Friedman explains is about executing an idea first, then figuring out what needs to be tweaked after. He hired one person dedicated to managing the newsletter—a former magazine writer and editor—then tapped his magazine’s existing contributors to write it. They named the newsletter TLDR, after the internet-slang acronym for “too long, didn’t read,” hinting at the brevity they wanted to achieve.

By late 2021, the first test edition of TLDR was sent out to a few members of the editorial, marketing and communication teams and their friends. A few more editions went out in the following weeks to get a sense of what worked and what didn't. "When did attention falter?" Friedman asks. "What did our test readers want to know that wasn't in there?"

Based on feedback, the newsletter's word count was trimmed, reducing both the number of articles and the length of each.

Another "ship it, then improve it" moment for Friedman came with figuring out the newsletter's frequency. He started with a weekly format, then pivoted to daily versions. But pretty soon, he realized a daily email wasn't offering much added value for the reader. "We wanted to provide something really polished and entertaining and save the reader time," Friedman says. "A daily newsletter didn't accomplish that." They reverted to weekly.

By June 2022, Friedman and his team—he now has two editors, a news writer and freelance contributors—were ready for the public launch.

After promoting TLDR through the company's Twitter account, email campaigns and in *Wealthsimple Magazine,* the newsletter's subscriber base grew. It now has two million subscribers, with over one million people opening each edition of the newsletter—an impressive rate considering the average is 21 per cent, according to Mailchimp.

The fact that reader feedback is openly encouraged and solicited through a simple survey at the end of the newsletter ("love it," "good" and "so so" are the options given) is one reason why Friedman believes TLDR is successful. The newsletter has received 22,000 reader responses to its survey. "I think it's a 'best practices' thing to have readers be able to say whether they liked it or not." Friedman says the editorial team reads every piece of feedback and tries to respond to every question.

37%

of consumer brands are increasing their email budget

For businesses wanting to start their own newsletters, Friedman encourages them not to make advertising or sales the top priority and instead focus on providing value to the reader. That is more likely to convert them to being a customer. "You have to make content that people want to engage with," he says. In other words, make them feel like they got something out of the newsletter. "If you're only thinking 'How do we get our own expert into this newsletter?' or 'How do we talk about this product?' it's easy for it to go wrong. That's marketing, which has its place but doesn't work as media."

Friedman is continuing to iterate on TLDR's content and format to keep it relevant and engaging for readers. For example, a few months after launching, he added "The Week In One Number"—a statistic, figure or percentage relevant to current news, like the number of days since the most recent bank failure in Canada or Silicon Valley Bank's total assets. "If you don't try out new things, you don't get to see what could work even better than what you're already doing."

"If you're only thinking 'How do we talk about this product?' it's easy for it to go wrong"

How to Encourage Employees to Return to the Office

Intelliware's staff looks forward to face-to-face time with colleagues thanks to its social initiatives

↑ Nick Diamond, on the mic, rocks out with Chris Ford, far left

Intelliware is a software-development company based in Toronto that builds digital solutions and online platforms—apps and websites—for major institutions, including Canada's banks. Prior to the pandemic, Intelliware had roughly 100 employees, 65 per cent of whom worked in the office every day. The rest worked off-site with clients. The company's HQ is downtown near the entertainment district in a 120-year-old brick-and-beam building that was previously occupied by a jeweller and diamond cutter. Intelliware leases three floors, including the basement.

To make coming to the office attractive, Intelliware kept a fully stocked snack station with chips, chocolate and fruit, served a hot breakfast once a week, hosted after-work drinks monthly and arranged group activities, like going to the CN Tower, at least once every six weeks.

That all changed when the pandemic hit. Like countless other companies, Intelliware switched to remote work. Employees adapted seamlessly because the company was already doing a lot of its work online, using the Microsoft stack to stay in touch.

"We have a lot of engineers, who mostly do individual contributor work," says Chris Ford, president of Intelliware. "Engineers are not known for being boisterous extroverts—they're much happier working from home full-time."

Fast-forward to the spring of 2022. A lot of workplaces were introducing back-to-office models, but Intelliware decided against mandatory in-person attendance. The company had maintained productivity remotely, plus, the world had changed: Employees would have to incur the costs of things like child care, commuting and dry cleaning, all of which had been largely avoidable—or at least minimized—during the pandemic.

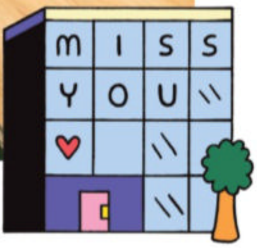
PHOTOGRAPH BY LUCY LU

Staff never vocalized their disapproval of a return-to-office policy, but looking around at other companies, like the major banks, Ford and his HR team anticipated it wouldn't be a good idea to make employees come back. "If you want to maintain a positive relationship with your staff, you'd better have a good reason for them to come in," Ford says. "Employees should feel a sense of purpose coming to the office, whether it's an opportunity to socialize with co-workers or work on a project that requires face-to-face interaction."

In weekly memos and quarterly town hall meetings, Ford asked employees what would make it worthwhile for them to return to the office. A technical director named Nick Diamond stepped up. For years, it's been known that Intelliware employees are musically inclined. A lot of them play instruments and attend shows after work. So, in the fall of 2022, Diamond suggested that the company rent musical instruments and put them in the basement, making use of a room that is otherwise used for client events. Diamond imagined having a space where—once a week, on Thursdays—employees could play music together.

Ford liked the idea. It served the purpose of allowing employees to have fun and connect with each other. By November, at a cost of roughly $800 a month to rent the instruments, Intelliware had filled the basement with a drum set, a bass guitar, a mixing board, two electric guitars and a few mics. All the instruments are set around a big Persian rug. The company also brought in lights that flash in different colours when they detect changes in sound frequency, making the basement feel like the site of a mini rock concert.

Nowadays, about eight employees come into the Intelliware offices on the average workday. But on Thursdays, upwards of 25 employees will show up for office hours. Then at 5 p.m.,



anywhere from five to 15 of them will descend to the basement to rock out. Everyone is welcome. Staff can play solo, karaoke-style or with a crew. Some employees jump from instrument to instrument, showing off their talent, while others prefer to keep it simple, playing the triangle, singing along or just sitting back and relaxing. The whole group might go out for dinner afterward.

Ford, for his part, decided to start a band with a couple of his co-workers—a software engineer and a technical director—and they come into the office every weekend to practise. The band doesn't have a name yet, but their goal is to play a few songs at this year's company holiday party.

"We've got a playlist, which includes 'Seven Nation Army' by The White Stripes and 'Free Fallin'' by Tom Petty," Ford says. "We're experimenting to find our vibe."

Ford says other companies should adopt a similar approach, letting employees make suggestions and creating purpose-driven experiences that make them want to come back to the office rather than feel forced. "We have lots of channels where team members can make their voices heard, including regular catch-ups and town hall meetings," Ford says. "Workplaces should create an environment where staff feel comfortable speaking up."

84%

of employees who work on-site say their connection with colleagues is either good or great

And if you're a small to mid-size company that's capable of making changes on the fly, Ford says it's a real competitive advantage. "We compete with the banks for talent," he says. "If the banks are instituting a compulsory return to work, we as a medium-size company can offer something much richer, much more meaningful."

HOW TO PITCH TO INVESTORS

Edmonton-founded Jobber recently closed a US$100-million funding round

In 2010, Sam Pillar and Forrest Zeisler met at an Edmonton coffee shop. They got talking and learned they were both computer scientists with an interest in helping small businesses.

Zeisler had a friend at a local painting company that needed help organizing paperwork. Seeing the market potential, Pillar and Zeisler founded Jobber, a software platform that helps small home-services businesses—plumbers, electricians, landscapers—manage and automate administrative tasks.

They bootstrapped the company with small investments from family and took on some credit card debt. Pillar entered a pitch competition through Alberta tech conference AccelerateAB and presented how Jobber worked and what problem it solved to potential investors.

He came first, winning a trip to a start-up conference in Kelowna, B.C. The experience led to follow-up meetings with investors, resulting in a $250,000 fundraising round in 2012. "I didn't know anyone prior to that competition," Pillar says. "It was great to get in the same room as investors involved in the ecosystem."

By 2013, the company had hit its stride, serving nearly 1,300 clients in 24 countries. In the early days, Pillar would meet with every investor that would talk to him. But as the company grew, he was more selective with meetings. He researched whether firms had invested in similar companies to gauge if they were serious. "As a CEO of an early-stage start-up, you want to spend as little time on fundraising as possible, because you should be spending your time growing the company," he says.

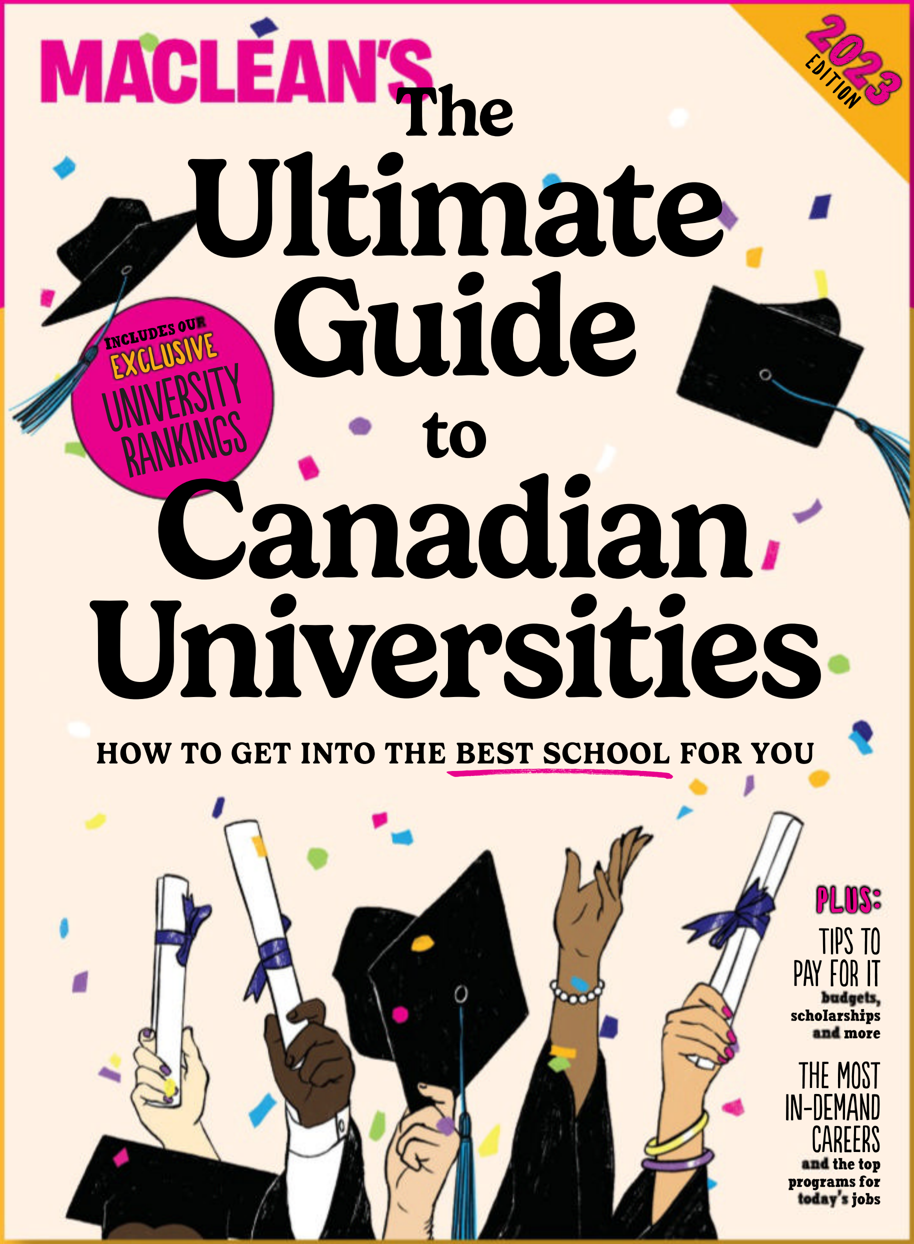
The strategy paid off. They raised $12 million in 2018 and $80 million in 2021 during Jobber's B and C rounds. By 2022, most investment firms knew what the company had to offer. Pillar was considering another round of fundraising to pump money into marketing and R&D.

In November, he had a list of about 10 serious potential investors. He zeroed in on General Atlantic, a New York-based private-equity firm with more than US$72 billion in assets. He explained how Jobber had tripled its revenue since 2021 and relayed how much he wanted to raise and how he intended to spend it.

In December, executives from Jobber and General Atlantic met in Toronto for a full-day meeting to discuss the investment. Then they went out to a steakhouse to get to know each other on a personal level. They finalized a deal in early 2023. General Atlantic invested US$100 million with backing from Summit Partners, Version One Ventures and Tech Pioneers Fund.

Pillar says it's important that start-ups focus on growing a customer base and providing value, ultimately creating a business that will attract investors. "If you can demonstrate consistent growth, you will have a much easier time raising capital."

Essential reading for every Canadian high schooler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Goodbye to...

Summer Fridays

Are we relaxed yet?

Blistering temperatures will soon be here, and with the change of weather comes excessively-air-conditioned offices, overpriced iced coffees and Summer Fridays, the weekly full or partial days off that for several years now have been a seasonal custom for many workplaces. While nearly nine in 10 employees say they appreciate the gesture, in practice almost two-thirds say that they've been too busy to take advantage of it in years past. And as the most progressive organizations move toward permanent four-day workweeks, the concept of a limited-time-only version seems...kind of lame?

Research shows that a year-round four-day workweek often improves productivity and promotes better work-life balance. And 15 per cent of participants in the world's largest four-day-workweek trial concurred that no amount of money would convince them to clock a standard 40 hours again. Plus, let's be real: For hybrid and remote workers, crafting your own schedule—and ever so occasionally taking a sneaky Friday afternoon off to go get a pedicure—is par for the course.

So let's say goodbye to summer Fridays and warmly welcome the progressive policies that replace them.

71%
of participants in
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study reported
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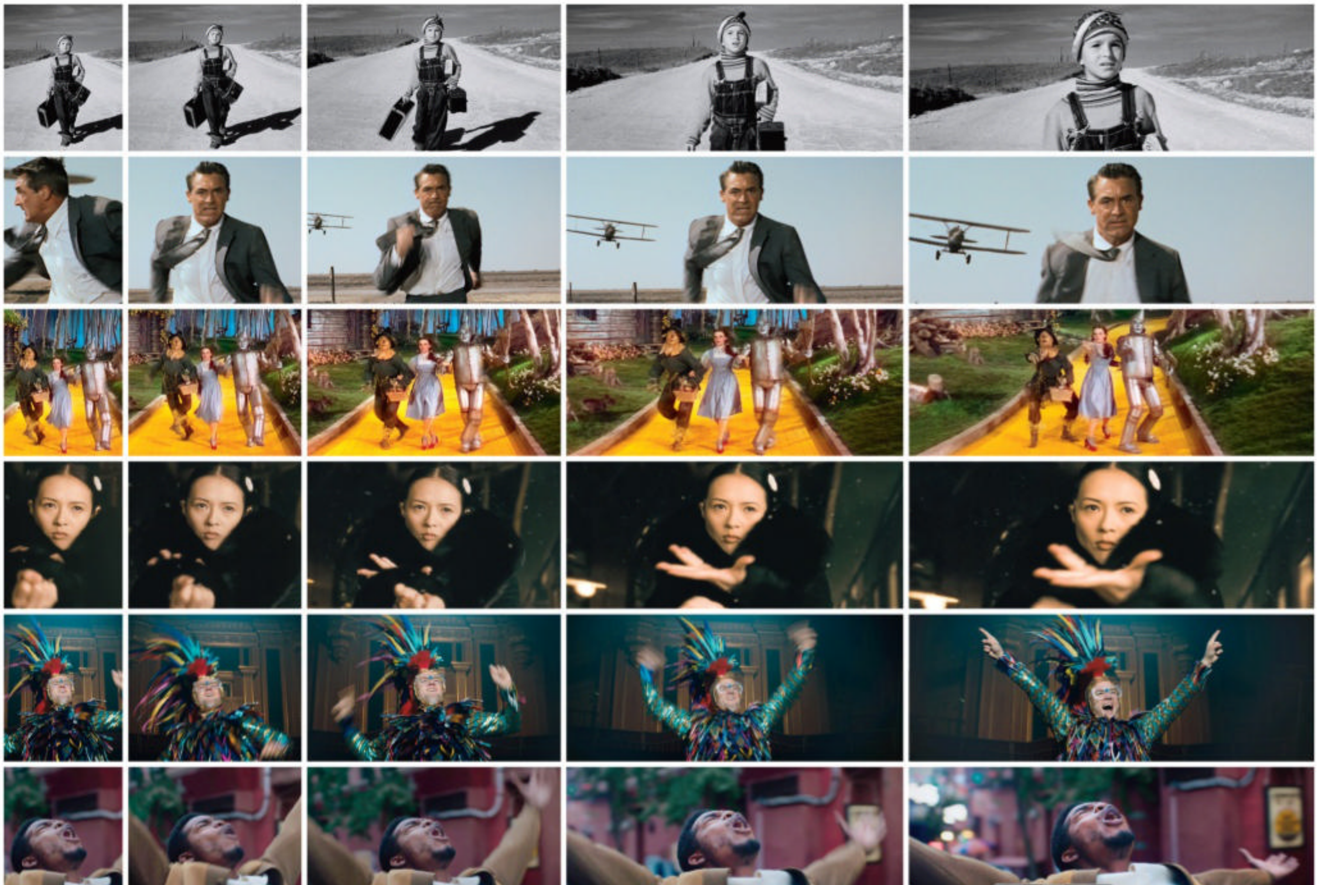

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